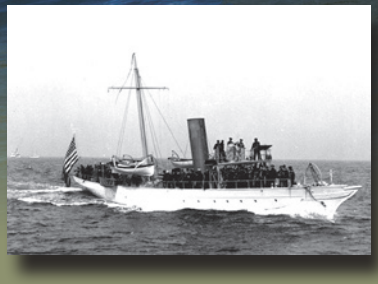
US NAVY GUNBOATS 1885–1945

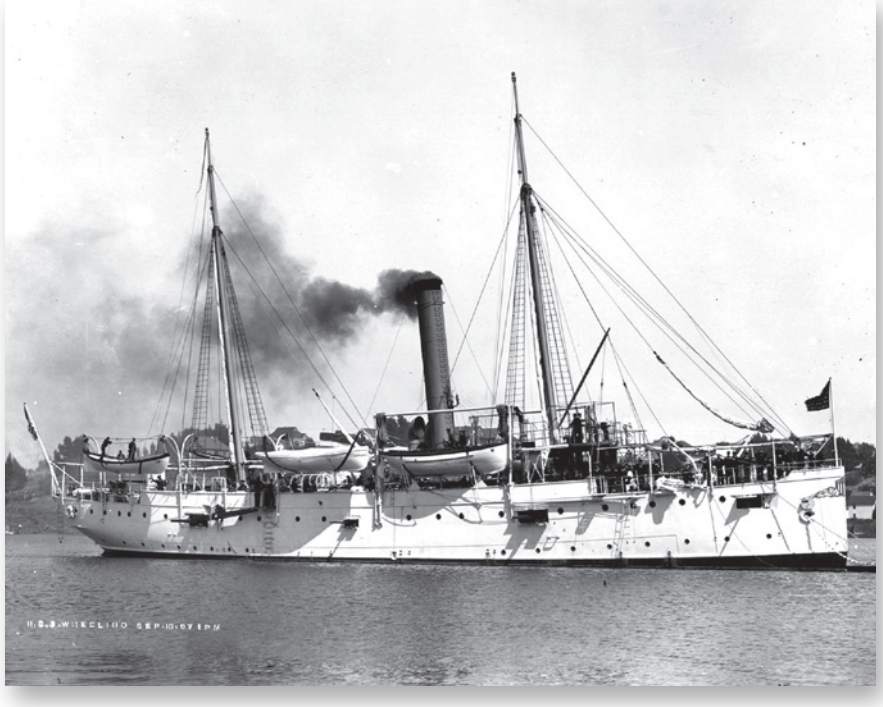


BRIAN LANE HERDER

ILLUSTRATED BY ADAM TOOBY

NEW VANGUARD 293

US NAVY GUNBOATS 1885–1945



BRIAN LANE HERDER ILLUSTRATED BY ADAM TOOBY

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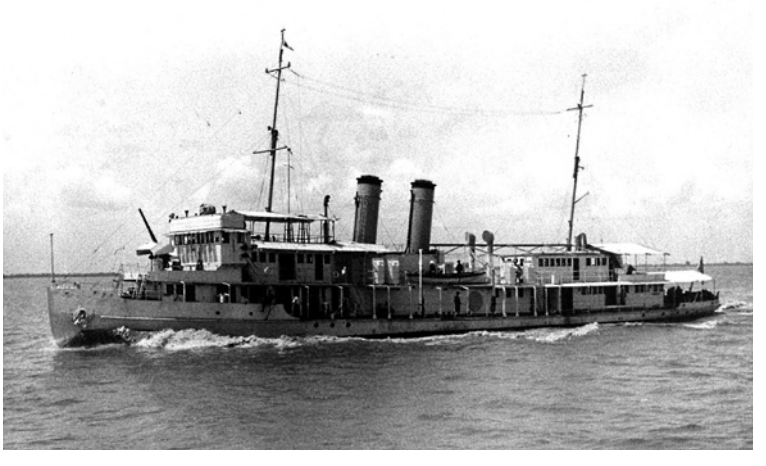
US NAVY GUNBOATS 1885–1945

INTRODUCTION

Like their foreign contemporaries, the US Navy's late 19th and early 20th-century steel gunboats showed the flag, patrolled rivers and littorals, protected expatriates, policed small crises, landed armed parties, and provided deterrence and fast-response capabilities around the world. Gunboats were, in a word, "expendable," meaning they were often the United States' most visible and persistent presence in far-flung foreign lands. During so-called peacetime it was the unglamorous gunboats that saw by far the most action. Gunboat life, while often tedious, was also frequently exciting and unpredictable. Although heavily involved in the Caribbean, US gunboats remain best remembered for their Far East service on the Asiatic Station. Whether landing naval infantry or providing gunfire support, their intended combat operations were against adversaries ashore. Nevertheless, they fought many battles against ships and aircraft, including their most famous actions.

Early in the Steel Navy era, the US Navy's use of the terms "cruiser" and "gunboat" largely overlapped, as both types often worked independently and performed many of the same missions. Indeed, early US steel gunboats did rival cruisers in size, power, range, and speed. However, US gunboats completed after 1898 were distinctively smaller and less expensive than US cruisers. This manifested itself tactically in lighter batteries, less protection, and slower speed (about 13 knots for gunboats against 20 knots for cruisers). These newer, smaller gunboats were never intended for modern ship-to-ship actions; indeed, they were "too slow to run and too small to fight." Many ended their careers reclassified, renamed, and/or performing auxiliary roles such as convoy escort, anti-submarine warfare (ASW), logistic support, and personnel training.



The most famous (or infamous) US Navy gunboat, USS *Panay* (PG-45/PR-5), during her standardization trials on August 30, 1928. *Panay* and her five sister ships were the last Yangtze gunboats built by the United States. *Panay* and the identical USS *Oahu* (PG-46/PR-6) were 191ft long; their sister ships USS *Luzon* (PG-47/PR-7) and USS *Mindanao* (PG-48/PR-8) were slightly longer at 211ft, while USS *Guam* (PG-43/PR-3) and USS *Tutuila* (PG-44/PR-4) were slightly shorter at 159ft. (Library of Congress)

In July 1920, the US Navy officially reclassified all remaining gunboats and "third-class" cruisers with the two-letter hull designator PG for "Patrol Gunboat." These included the surviving 2,000-ton Montgomery-class unprotected cruiser *Marblehead*, commissioned in 1894, the two 3,769-ton New Orleans-class protected cruisers commissioned in 1898–1900, and the six 3,200-ton Denver-class protected cruisers commissioned in 1903–05. After a mere 13 months under the gunboat classification, these nine former cruisers (PG-27 through PG-34, plus PG-36) were then reclassified as "light cruisers" (CL) on August 8, 1921. Additionally, PG-25 and PG-26 had apparently been reserved for the Montgomery-class cruisers *Montgomery* and *Cincinnati* before they were struck. The final "Patrol Gunboat" outlier was *Nantucket*, an iron-hulled 1,020-ton screw steamer commissioned in 1876 as the Alert-class gunboat USS *Ranger*. Decommissioned on November 10, 1908, *Ranger*, re-named *Nantucket*, was nevertheless briefly designated PG-23 in July 1920. For our purposes, we will confine our examination to the more conventional US steel gunboats.

A US gunboat landing party from 20th Century Fox's 1966 film *The Sand Pebbles*. In the foreground, Steve McQueen's character wields an M1918 .30-06 Browning Automatic Rifle (BAR). Behind McQueen, a white-dressed seaman holds an M1903 .30-06 Springfield rifle. Although the scene and movie are fictional, both were accurate to the late 1920s Yangtze River. (Twentieth Century Fox Film Corporation/ Sunset Boulevard/Corbis via Getty Images)

In addition to the US Navy's officially designated "Patrol Gunboats" (PG), several related US Navy types will be addressed, including the "armed yacht" or "Patrol Yacht" (PY) and the "Monitor" (BM). Both were gunboats in all but name. The US Navy additionally converted a handful of commissioned gunboats/yachts into special VIP flagships; these vessels ultimately witnessed much 20th-century history play out on their decks. Space limitations unfortunately prevent a definitive accounting of all US steel gunboats, operations, or combat actions between 1885 and 1945. This title instead serves as a succinct yet broad-ranging survey addressing the subject's highlights.

DESIGN AND CONSTRUCTION

Gunboats were notoriously heterogeneous in design. Overwhelmingly built in civilian shipyards, US gunboats were generally slow, lightly armed, virtually unarmored, and displaced anywhere between 200 and 2,000 tons. Crews were typically between 130 and 190 officers and men, with river gunboats employing 50–60 personnel. Draft was typically shallow, especially for river gunboats, which might draw just a few feet.

Without overseas bases, early US steel gunboats needed to be ocean-going. They were nevertheless oversized, overbuilt, and over-armed, reflecting the early Steel Navy's primitive design philosophy. At most a ½in to ⅜in steel "watertight" deck shielded machinery and magazines. Below the waterline,

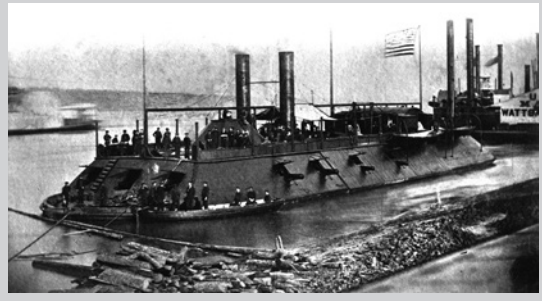
GUNBOAT DEVELOPMENT

The US Navy commissioned its first screw-powered warship, the 954-ton steam sloop USS *Princeton*, on September 9, 1843. Despite the catastrophic explosion of one of *Princeton*'s guns on February 28, 1844, resulting in the deaths of five of those onboard, US Navy research into steam power and ironclad construction continued into the 1850s. Between 1854 and 1859 the US Navy commissioned 30 steam sloops or steam frigates, including six screw-powered sloops. By 1861 some 39 US Navy warships were on active service in six squadrons around the globe, but none were capable of riverine operations.

American trade with the Far East had existed since August 28, 1784, when the merchantman *Empress of China* became the first US-flagged ship to visit the Middle Kingdom (China). The ruling Qing dynasty had severely regulated local Western trade since 1757, restricting it to the single treaty port of Canton. However, beginning with Britain's 1842 Treaty of Nanking, foreign powers increasingly imposed on China so-called "unequal treaties" to secure free trade, extraterritoriality, and concessions and treaty ports under foreign control. Among these powers was the United States, which successfully negotiated the Treaty of Whangia in 1844. Meanwhile, in 1853–54, Commodore Matthew C. Perry's East India Squadron coerced Japan into establishing official relations and trade with the United States.

Four years later the 1858 Treaty of Tientsin greatly expanded American and European rights in China. Among its provisions, the treaty explicitly tolerated Christian missionizing, allowed free travel into China's interior, and legalized foreign trade and navigation along the Yangtze River. Consequently, the US Navy's East India Squadron first steamed up the Yangtze and established a China station in spring 1861. However, the American Civil War of 1861–65

James G. Evans' oil-on-canvas *US Japan Fleet, Como Perry carrying the "Gospel of God" to the Heathen, 1853* displays Commodore Matthew C. Perry's steam-powered squadron of "Black Ships" that opened Japan in 1853–54. Perry's flagship was the 2,450-ton steam frigate USS *Susquehanna*. (Joseph Aaron Campbell/Stephen Jensen/Chicago History Museum/ Getty Images)



City-class ironclad river gunboat USS *Cairo* on the Mississippi River in 1862. A remote-controlled mine sank her on December 12 that year. Her wreck was raised in 1964, and she is now a museum ship open to the public at the Vicksburg National Military Park, Mississippi. (US Navy)

shortly forced the US Navy to temporarily abandon the Asiatic, leaving only the 1,457-ton steam sloop USS *Wyoming* by 1862. The following year, US merchantmen were attacked by the Japanese daimyo Takachika Mori. *Wyoming* retaliated against Mori's Shimonoseki Strait stronghold on July 16, 1863. After a two-hour firefight, *Wyoming* had destroyed several of Mori's ships and four shore batteries, and killed 40 Japanese. *Wyoming* suffered four dead and seven wounded in this early US gunboat action.

Back in North America, the US Army's Western Gunboat Flotilla had commissioned the seven 512-ton City-class gunboats or "Eads gunboats" in 1862. These 175ft long, purpose-built river gunboats drew 6ft and were the United States' first ironclads. They mounted three 8in smoothbore Dahlgrens, four 43-pdrs, and six 32-pdrs. Two reciprocating steam engines drove a 22ft paddlewheel at a top speed of eight knots. In October 1862, the US Army's growing gunboat flotilla was transferred to the US Navy and redesignated the Mississippi River Squadron. Over the next three years, joint US Army/US Navy gunboat operations would exploit North America's vast inland river system to slowly strangle the insurgent Confederacy by 1865. By then the victorious US Navy was the largest, most advanced, and most combat-experienced gunboat force in the world.

In 1866 the US Navy returned to China with 12 ships; in contrast the Royal Navy posted 45 ships, including 29 gunboats. Among the US Navy warships were the brand-new 1,030-ton, 255ft paddle-wheelers *Ashuelot* and *Monocacy*, which drew 9ft. They were armed with four 8in smoothbore Dahlgrens, two 60-pdr Parrot rifles, two 24-pdr howitzers, and two 20-pdr Parrot rifles. *Ashuelot* became the first US warship to reach Ichang, 970 miles up the Yangtze, but she would founder off Amoy on February 18, 1883. *Monocacy*, utterly derelict by 1898, would be sold in 1904 for $8,000.

By 1869 the arch-conservative Admiral David D. Porter would shutter the US Navy's foreign coaling stations, slash US Navy steaming time, and mothball the 4,215-ton steam-powered screw frigate USS *Wampanoag*, at 17 knots the

An 1898 French cartoon depicts the period's Great Powers carving up the Chinese pie while an ineffectual Qing government protests hysterically. From left to right are Britain, Germany, Russia, France, and Japan. Ironically, the United States is absent – despite the Americans' large presence, the United States never carved official colonies out of China. (Wikimedia Commons/Public domain)

world's fastest ship. The US Navy's surviving warships were obsolescent ironclads or wooden sailing ships such as the 1874 gunboat USS *Adams*, a barque-rigged 1,375-ton screw sloop mounting one 11in gun, four 9in guns, and one 60-pdr Parrott rifle. By the 1870s, US Navy seagoing strength, technological prowess, and institutional morale had hit rock bottom.

A burgeoning American naval renaissance began to emerge the following decade. In 1882, a special board met to discuss building a brand-new, modern steel navy. Then on March 3, 1883, Congress authorized the US Navy's first four steel-constructed warships, heralding the beginning of the so-called "New Navy" or "Steel Navy." Nicknamed the *ABCD* ships, three were modest cruisers: the 3,200-ton *Atlanta* and *Boston* and the 4,500-ton *Chicago*. The fourth was the 1,485-ton armed dispatch vessel *Dolphin*, intended for conveying messages in the pre-wireless age but essentially the US Navy's first steel gunboat.

Dolphin and her successors eventually replaced the US Navy's aging wooden gunboats and screw sloops. The idea of US gunboats themselves was anomalous to the resurgent US Navy's prized "battle fleet" strategy of sea control. However, practical considerations demanded the US Navy expend resources on gunboats and gunboat operations. By 1902, a total of 42 steel, iron, or composite-hulled fourth-class gunboats were in active US Navy service, ranging in size from USS *Yankton* (975 tons) to USS *Urdaneta* (42 tons). The two primary overseas regions to which the US Navy assigned gunboats were the Caribbean and the Asiatic.

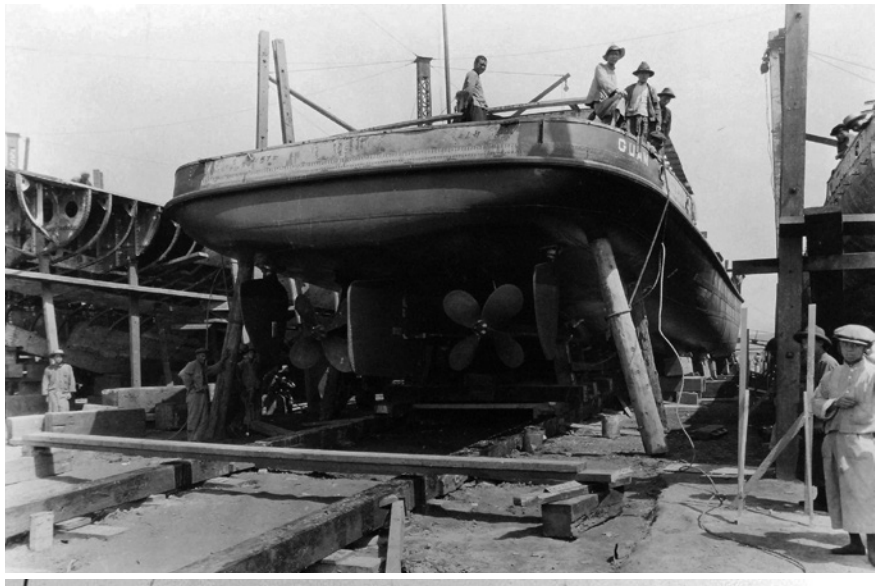
gunboats were subdivided into minute sub-compartments for watertight integrity. Full coal bunkers provided additional protection.

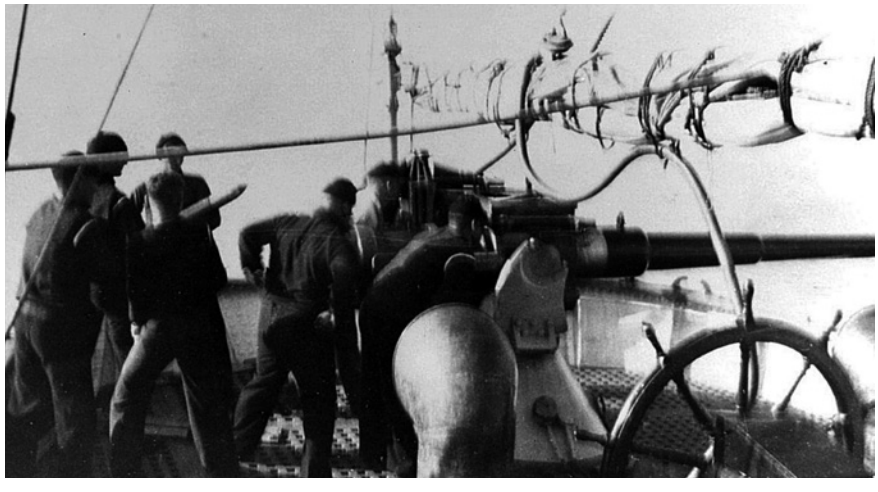
Early US gunboats were often built larger than their complement required. During crises, gunboats expected to transport civilian refugees, typically American expatriates, but also foreigners, particularly expatriates from fellow Western nations. Mostly they were expected to ferry landing parties, typically the gunboats' own naval infantry, but also possibly US marines, US Army infantry, and the occasional field gun.

Late-1800s steam engines were typically inefficient and unreliable, meaning the US Navy's early steel gunboats were often backed by full sailing rig. By 1885, American-built steam engines still produced only about 2.5hp per ton of machinery; more advanced European-built engines reached 10+hp/ton. The newly introduced triple expansion engine shortly made 20 knots possible instead of the 16 knots of previous cruisers/gunboats. By comparison, sail-powered wooden ships reached 11–12 knots. Older gunboats, especially those captured from the Spanish, typically employed more primitive powerplants. Boilers were typically coal-fired, although the US Navy converted its newer gunboats to fuel oil in the 1920s, while subsequent gunboats were designed for oil. Most gunboats and armed

TOP
Purpose-built river gunboat USS *Guam* (PG-43/PR-3) displays her shallow draft, triple rudders, and twin shafts while under construction at Shanghai in May 1927. On April 5, 1941, *Guam* would be renamed *Wake*, relinquishing her name to the US Navy's recently authorized 29,771-ton Alaska-class "large cruiser" CB-2. (LOC)

BOTTOM
Former Spanish gunboat USS *Elcano* (PG-38) fires one of her 4in/50 guns during battle practice, early 1920s. Rapid-firing 3in and 4in guns combined high firing rates with strong hitting power. By the 1900s they were nearly universal as US gunboats' main battery. (Naval History and Heritage Command, NH 68980)





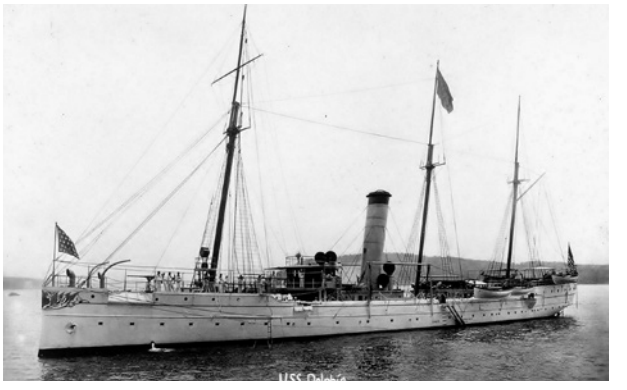
yachts commissioned after 1939 employed diesel engines or modern geared turbines.

US gunboats were typically specialized for littoral combat and their batteries were comparable to field guns and crew-served infantry weapons. The largest was the 6in gun (effectively a 155mm field piece). More common was the 4in (effectively a 105mm field gun), and the 3in (a 76.2mm field gun). Early large guns required bag propellant and fired slowly. Smaller guns employed cartridge shells and were called "rapid-firing" (RF) to distinguish them from the slower "bag-loading" (BL) guns. By the early 1900s, technological and doctrinal advances allowed American "rapid-firing" guns up to 6in. Large automatic weapons were employed for infantry support, and comprised 6-pdrs (57mm), 3-pdrs (47mm), and one-pdrs (37mm), often in the form of autocannons and Gatling guns. US gunboats also mounted standard US Army/US Navy machine guns. The US Navy had expected to retrofit its first steel gunboats with torpedo tubes, but ultimately never did. However, several captured Spanish gunboats did retain operational 14in torpedo tubes in US Navy service.

GUNBOATS

The first steel gunboats

The 1,485-ton steel dispatch vessel *Dolphin* was built at Chester, Pennsylvania's Roach shipyard and launched on April 12, 1884. New Secretary of the Navy William C. Whitney initially refused to accept the $315,000 *Dolphin*, claiming she was of substandard construction. USS *Dolphin* was ultimately commissioned on December 8, 1885, becoming the first ship of the new Steel Navy to be completed.



The New Navy's first steel warship, USS *Dolphin* (PG-24), in the 1890s. On April 9, 1914, local troops mistakenly arrested nine *Dolphin* sailors at Tampico, Mexico. The Tampico governor immediately released the Americans and apologized but refused to deliver a 21-gun salute to the American flag as the US Rear Admiral Henry T. Mayo demanded. This so-called "Tampico Affair" resulted in the US invasion of Veracruz. (US Navy)

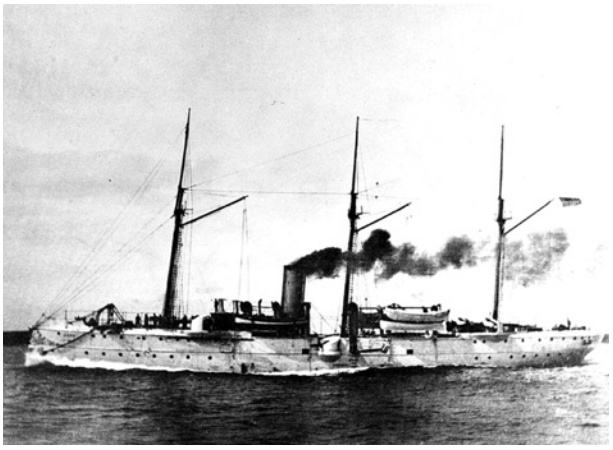
Dolphin mounted one 6in/30 BL gun, two 6-pdrs, and four 3-pdr Hotchkiss revolving cannons, although the 6in/30 was replaced by two 4in/40 guns in 1891. Four coal-fired boilers fed steam to a single vertical compound engine, which delivered 2,225ihp for a top speed of 16 knots. *Dolphin* lacked armor, and her machinery extended above the waterline. *Dolphin*'s size and armament nevertheless made her the US Navy's first steel gunboat, but she would not be officially classified as such until 1921, when she was designated PG-24. During her career she was sometimes called a cruiser.

Dolphin briefly functioned as the presidential yacht of President Grover Cleveland in 1893. On April 7, 1917, *Dolphin* arrived at Saint Thomas in the Caribbean and officially took possession of the recently purchased Danish West Indies (US Virgin Islands). After patrolling the Caribbean and Gulf of Mexico during World War I, *Dolphin* was decommissioned on December, 1921 and sold to Mexico on February 25, 1922.

The 1,710-ton USS *Yorktown* (Gunboat No. 1 or PG-1) was the US Navy's first official steel gunboat upon being commissioned on April 23, 1889. She was designed as a European-style "torpedo gunboat" intended to screen the US Navy's battle fleet against torpedo boat attacks, but her size, armament, and range effectively made her a "torpedo boat destroyer" and she was occasionally called a "torpedo cruiser." *Yorktown*'s 14ft draft was deep for a gunboat, but shallow enough to theoretically allow her to evade larger warships. Two sister ships, *Concord* (PG-3) and *Bennington* (PG-4), were authorized in 1887 and commissioned on February 14 and June 20, 1891 respectively.

Yorktown was 244.5ft long and had a beam of 36ft. She incorporated a watertight turtleback deck of ⅜in steel that sloped downwards to meet the hull 3ft below the waterline. Beneath this deck were 12 watertight compartments; above the deck were watertight doors that could be closed in combat. An oval-shaped conning tower was equipped with a steering wheel, telegraph, and speaking tubes, and protected by 2in steel armor.

The turtleback deck shielded two back-acting (horizontally-mounted) triple-expansion engines, each driving a 10.5ft, three-bladed propeller at a top speed of 16 knots. Four railroad-type boilers powered the engines. *Yorktown*'s protected bunkers provided 400 tons of coal for a range of 12,000nm at eight knots. Auxiliary power was provided by a three-masted schooner rig, with a total sail area of 6,300 sq ft. *Yorktown* mounted an essentially cruiser battery of six 6in/30 BL guns. Two 6-pdrs, two 3-pdrs, two 1-pdrs, and two 0.30-caliber machine guns provided secondary



The US Navy's first official steel gunboat USS *Yorktown* (PG-1) running a measured mile off Newport, Rhode Island in 1889. She is making 16.65 knots at full speed. Despite her designation, *Yorktown* effectively functioned as a small cruiser. (NHHC NH 49907)

batteries. Also, hull openings expected to eventually accommodate six above-surface torpedo tubes.

The US Navy's first squadron of steel warships, the Squadron of Evolution, departed New York on November 18, 1889. Nicknamed the "White Squadron," it originally comprised the cruisers *Atlanta*, *Boston*, and *Chicago*, plus the gunboats *Dolphin* and *Yorktown*. The squadron first toured the US East Coast, before departing to visit foreign ports on the Mediterranean and both sides of the Atlantic. *Yorktown*'s sister ships *Concord* and *Bennington* joined the squadron in 1891. In October 1891, the US Navy ordered Commander Robley D. Evans' *Yorktown* to the Pacific Squadron and Valparaíso, Chile to respond to the "*Baltimore* Crisis" that had seen locals kill two US Navy sailors and injure 18. By January 1892, the crisis had abated. The US government then dispatched *Yorktown* and two US cutters to the Bering Sea. Here *Yorktown* helped police an international flotilla of 110 outlaw schooners poaching Alaskan seals. During the difficult Arctic duty, Bradley A. Fiske, a *Yorktown* lieutenant, successfully tested his experimental telescopic gunsight. *Yorktown* then joined the Asiatic Station from 1894 to 1897, before missing the Spanish-American War of 1898 with an overhaul.

Concord spent most of her career in the Pacific and Asiatic and saw action at the May 1, 1898 Battle of Manila Bay, where she proved larger, faster, and considerably more powerful than three of Spain's "cruisers" she helped sink. After Philippine-American War operations, *Concord* served on the Yangtze and patrolled off Mexico and Alaska.

Between 1895 and 1899 the third Yorktown-class ship, USS *Bennington*, patrolled the US West Coast and the independent Republic of Hawaii. On January 17, 1899 she officially claimed unoccupied Wake Island for the United States, then accepted the handover of Guam one week later. *Bennington*'s career suddenly ended at San Diego on July 21, 1905, when she suffered a catastrophic boiler explosion that killed 66 of her 112 men.

USS *Petrel* (Gunboat No. 2 or PG-2) was laid down in 1887 and commissioned on December 10, 1889. Mounting four 6in/30 BL guns on 892 tons, the 176ft long *Petrel* was essentially a small, slow cruiser. Her horizontal back-acting compound engine drove a single screw at just 11.5 knots. She employed a watertight deck. Contemporary US seamen nicknamed *Petrel* the "Baby Battleship."

A

USS *YORKTOWN* AND USS *WILMINGTON*

1. USS *Yorktown* (PG-1) 1889. The US Navy's first official steel gunboat, USS *Yorktown* is in peacetime white and ocher while cruising with the Squadron of Evolution (White Squadron) in 1889. As seen here, *Yorktown* has deployed her full schooner rig for increased endurance.

2. USS *Wilmington* (PG-8) 1899. Although designed for China, USS *Wilmington* first cruised South American rivers. After navigating the Orinoco and Surinam in January–February 1899, she began steaming up the Amazon in March. She eventually reached Iquitos, Peru, some 2,300 miles upriver on April 13. Five days later *Wilmington* departed seawards, eventually reaching Rio de Janeiro on April 28, 1899, a 4,600-mile round-trip Amazon journey.

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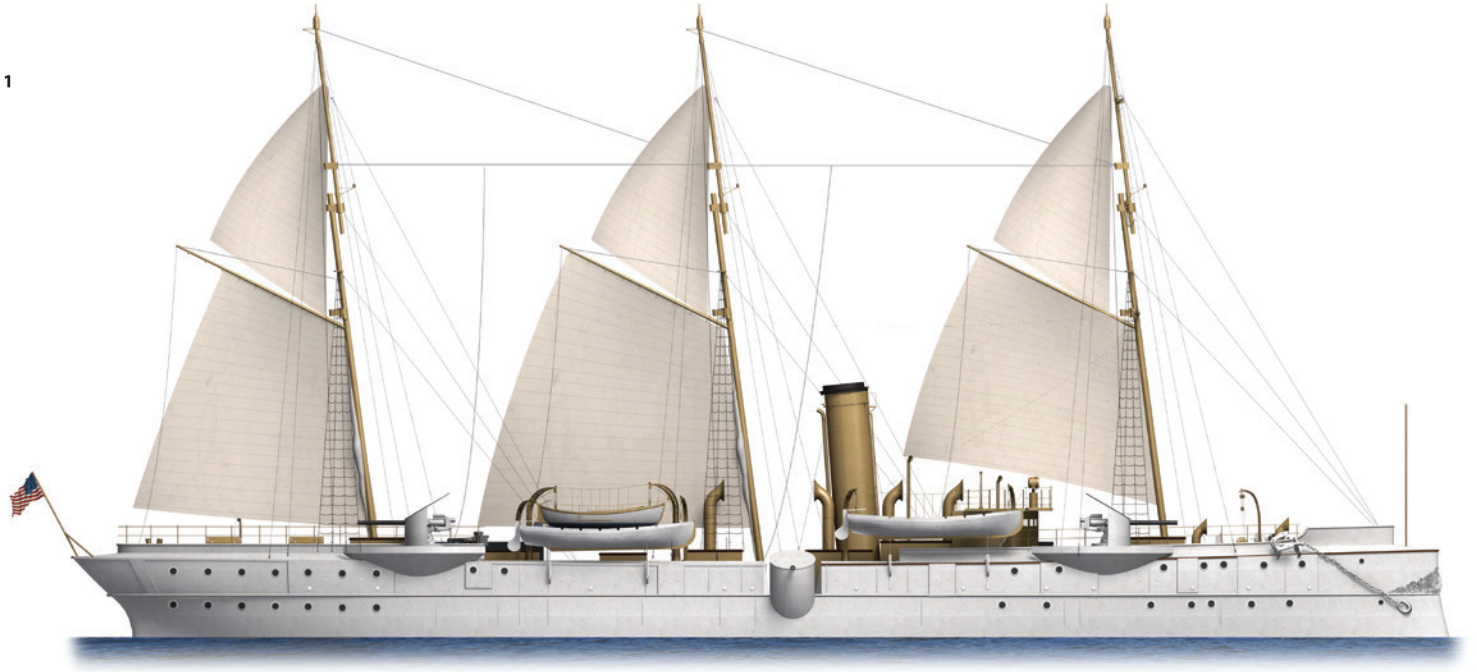

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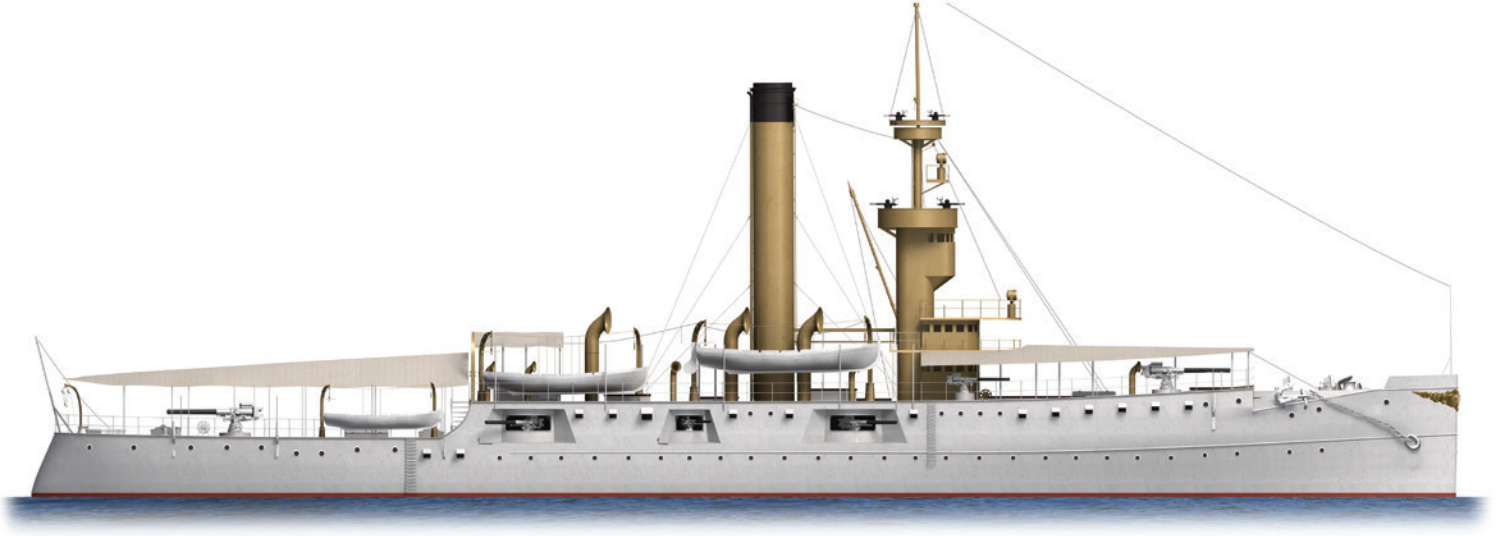


The cruiser USS *Chicago* leads the Squadron of Evolution or "White Squadron" *c.*1891. Immediately astern are the cruiser USS *Newark* and gunboat USS *Yorktown*. Between 1888 and 1889, the White Squadron, including USS *Dolphin*, cruised 58,000 miles around the world without any major mishaps, setting the stage for the Great White Fleet of 1907–1909 (Universal History Archive/Universal Images Group via Getty Images)

Authorized in 1888 were the schooner-rigged *Machias* (PG-5) and *Castine* (PG-6). After completion, both vessels were judged too unstable in sea trials. They were cut in two, spliced amidships with an additional 14ft section, given additional ballast, and reassembled. Masts and stacks were shortened and gun sponson armor removed. After finally being commissioned on July 20, 1893 (*Machias*) and October 22, 1894 (*Castine*) they displaced 1,177 tons and mounted eight 4in/40 RF guns, four 6-pdrs, and four 1-pdrs. One hull opening could potentially accommodate a single above-surface torpedo tube. Two horizontal triple-expansion engines delivered 3,405ihp to two shafts, allowing 16 knots.

Finally, in September 1896 the US Naval Academy's 839-ton training ship USS *Bancroft* was converted into a full-time gunboat. Commissioned on March 3, 1893, *Bancroft* served the US Navy until 1905 before transferring to the US Coast Guard the following year. *Bancroft* never received a hull number.

US steel gunboats 1885–94

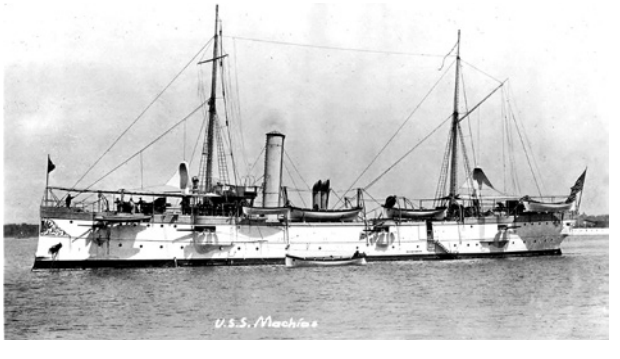
Ship	Built	US Navy service	Tons	Draft	Speed	Main guns
Dolphin (PG-24)	1884	1885–1921	1,485	14.25ft	15.5kts	Two 4in/40
Yorktown (PG-1)	1888	1889–1919	1,710	14ft	16kts	Six 6in/30
Petrel (PG-2)	1888	1889–1919	892	11ft	11.5kts	Four 6in/30
Concord (PG-3)	1890	1891–1914	1,710	14ft	16kts	Six 6in/30
Bennington (PG-4)	1890	1891–1905*	1,710	14ft	16kts	Six 6in/30
Machias (PG-5)	1892	1893–1919	1,177	12ft	15.5kts	Eight 4in/40
Castine (PG-6)	1893	1894–1919	1,177	12ft	16kts	Eight 4in/40
Bancroft	1892	1893–1905	839	13ft	14kts	Four 4in/40

** Lost in USN duty.*

The gunboat USS *Machias* (PG-5) in service after her 14ft lengthening. Like many US steel gunboats of her era, *Machias* was intermittently in and out of commission throughout her US Navy career. She mostly saw action in the Caribbean. (US Navy)

1890s gunboats

Benjamin F. Tracy had been named Secretary of the Navy in March 1889. US Navy officers quickly converted Tracy into a "battle fleet" proponent, and US gunboat orders temporarily ceased in favor of battleship and cruiser construction. Hilary A. Herbert succeeded Tracy as Secretary of the Navy in March 1893 and shortly thereafter approved three new gunboats. The unique 1,190-ton USS *Nashville* (PG-7) was commissioned on August 19, 1897, and incidentally was the first US warship built at Newport News Shipbuilding, Virginia. *Nashville* mounted eight 4in/40 RF guns, four 6-pdrs, and two 1-pdrs. She made 16 knots on 2,500ihp.



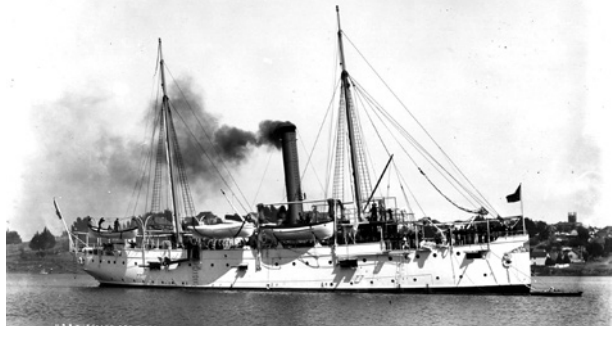
After seeing action in the Asiatic, *Nashville* spent 1901–02 in the Mediterranean. On November 2, 1903, she was dispatched to Colón on the Caribbean side of the Panamanian isthmus, where she secured

uninterrupted the operation of the cross-isthmian Panama Railroad by preventing the landing of either government or revolutionary troops. This action effectively prevented Colombian troops from responding to Panamanian insurgents, securing the Panamanian isthmus for the future US canal. In April 1909 *Nashville* was transferred, unarmed, through the Canadian canal system for assignment with the Illinois Naval Militia. Upon arriving at Chicago, she was rearmed for training purposes. This "letter-of-the-law" violation of an 1817 treaty caused a minor international incident with Canada.

The 1,571-ton Wilmington-class gunboats USS *Wilmington* (PG-8) and USS *Helena* (PG-9), commissioned on May 13 and July 8, 1897 respectively, were the first US gunboats designed specifically for service in China. Among their specialized features was a tall, thick military mast allowing commanding views over the Yangtze's 50ft high banks. The Wilmingtons' 9ft draft allowed service in Chinese river mouths, if not deep upriver. *Wilmington* and *Helena* each mounted eight 4in/40 RF guns and four 3-pdrs. They made 15 knots. Both gunboats saw extensive service on the Asiatic and Yangtze stations, with *Helena* seeing combat in the Philippine-American War before eventually being struck on May 27, 1932. *Wilmington* was redesignated IX-30 and renamed *Dover* on January 27, 1941. She spent 1942 escorting convoys off the US East Coast, served as a New Orleans training ship between 1943 and 1945, and was finally struck on January 8, 1946.

The Annapolis-class gunboat USS *Vicksburg* (PG-11) displaying full sail while underway, *c.*1897–98. The ship's namesake, Vicksburg, Mississippi, was the location of a major gunboat/land battle in 1863 and is currently the site of the salvaged 1862 ironclad gunboat USS *Cairo*. (NHHC NH 42053-A)

In 1895, Congress authorized six 1,000-ton gunboats, each to mount six 4in/40 guns, four 6-pdrs, two 1-pdrs, and one 0.30-caliber machine gun on a composite hull that was steel above the waterline and wood beneath. The US Navy offered shipyards a choice between two similar classes: one powered by a single screw and full sail for endurance, and another powered by twin screws. Both classes were to make 12 knots under steam. The first type, the 1,153-ton Annapolis class, comprised four vessels commissioned in 1897–98: USS *Annapolis* (PG-10), USS *Vicksburg* (PG-11), USS *Newport* (PG-12), and USS *Princeton* (PG-13). These were single-screw ships with full barkentine rig of 11,253sq ft sail area. The remaining two 1895-authorized gunboats became the 990-ton, twin-screwed Wheeling class. The Wheelings carried 120 tons more coal than the Annapolis-class vessels but saved 15 tons in spars. USS *Wheeling* (PG-14) and USS *Marietta* (PG-15) were laid down in April 1897 and commissioned on August 10 and September 1, 1897 respectively. All six gunboats saw service in 1898 and four patrolled against U-boats in 1918.



USS *Wheeling* (PG-14) viewed in 1897. *Wheeling* patrolled off Veracruz after the April 1914 invasion, then returned in 1916 to provide gunfire support to US Army troops fighting Mexican bandits ashore. Operating out of Gibraltar in 1918, *Wheeling* would see multiple actions against German U-boats. (LOC)

On April 2, 1898, the US Navy purchased the idle freighter *Diogenes* from Britain and commissioned her as USS *Topeka*. By July 11, 1898, the fully overhauled and armed gunboat *Topeka*, now displacing 2,255 tons, arrived off Cuba to join the US Navy's wartime blockade of the island. *Topeka* was 259ft long, with a beam of 35ft and a draft of 16ft. She had a top speed of 16 knots. She mounted six 4in/40 guns, six 3-pdrs, two

1-pdrs, and an M1895 Colt-Browning machine gun. *Topeka* served without a hull number until July 1920, when she was designated PG-35.

US steel gunboats 1897–98

Ship	Built	US Navy service	Tons	Draft	Speed	Main guns
Nashville (PG-7)	1896	1897–1918	1,190	11ft	16kts	Eight 4in/40
Wilmington (PG-8)	1896	1897–1945	1,571	9ft	15kts	Eight 4in/40
Helena (PG-9)	1896	1897–1932	1,571	9ft	15kts	Eight 4in/40
Annapolis (PG-10)	1897	1897–1919	1,153	12.75ft	13kts	Six 4in/40
Vicksburg (PG-11)	1897	1897–1919	1,153	12.75ft	13kts	Six 4in/40
Newport (PG-12)	1897	1897–1906	1,153	12.75ft	13kts	Six 4in/40
Princeton (PG-13)	1897	1898–1919	1,153	12.75ft	13kts	Six 4in/40
Wheeling (PG-14)	1897	1897–1946	990	12.75ft	12kts	Six 4in/40
Marietta (PG-15)	1897	1897–1919	990	12.75ft	13kts	Six 4in/40
Topeka (PG-35)	1881	1898–1929	2,255	16ft	16kts	Six 4in/40

Early 20th-century gunboats

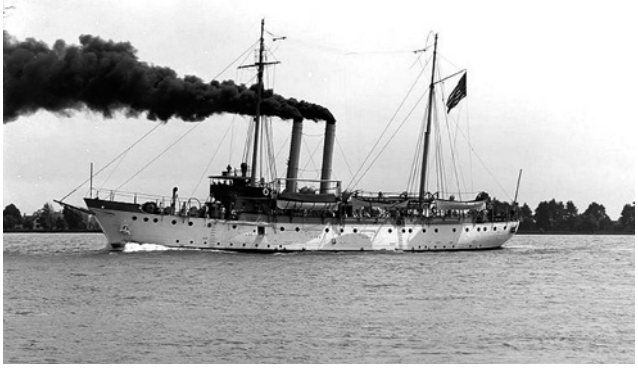
In 1902 the US Navy ordered two new gunboats for Caribbean patrol and survey duties. These were the 1,174-ton USS *Dubuque* (PG-17) and USS *Paducah* (PG-18), both laid down in 1903 and commissioned on June 3 and September 2, 1905 respectively. The Dubuque-class was 200ft long, with a beam of 35ft and a draft of 12ft. Two vertical triple expansion engines (VTE) delivered 1,000ihp to two shafts for 12 knots. The Dubuques mounted six 4in/40 guns, four 6-pdrs, two 1-pdrs, and one 0.30-caliber machine gun.

In March 1911, Congress authorized a $500,000 Caribbean gunboat that would be cheaper than the 3,200-ton Denver-class peace cruisers. This resulted in the 1,237-ton USS *Sacramento* (PG-19), commissioned on April 26, 1914. Two 215psi coal-fired water-tube Babcock & Wilcox boilers fed a 950-hp VTE. A single shaft delivered 13 knots, while 428 tons of coal allowed a 4,000nm range. Armament was three 4in/50 guns, two 3-pdrs, and two 1-pdrs.

In 1913, the US Navy's General Board called for a 1914 gunboat that traded half of *Sacramento*'s 4,000nm range for a fourth 4in gun, but this proved impractical to build on the approved budget. Only in October 1915 was a design approved that mounted three 4in/50 guns on a 1,575-ton hull. Speed would be 12 knots, with range now 8,000nm. The new Asherville-class was therefore an incrementally improved *Sacramento*. USS *Asheville* (PG-21) was commissioned on July 6, 1920, followed by USS *Tulsa* (PG-22) on

BELOW LEFT
USS *Dubuque* (PG-17) as photographed by the Detroit Publishing Company sometime between 1905 and 1915. She may be cruising with the Illinois Naval Militia. Her ocher coloring extends down throughout her forecastle. (LOC)

BELOW RIGHT
Viewed from British gunboat HMS *Wishart*, the gunboat USS *Fulton* (PG-49) burns to destruction 18 miles off Hong Kong the night of March 14, 1934. *Wishart* and the merchantman SS *Tsinan* rescued *Fulton*'s entire crew. Afterwards the US Navy Department officially thanked the Royal Navy for its assistance. (NHHC NH 53976)



December 3, 1923. Powered by a Parsons-geared turbine of 850shp, they were among the last US Navy warships built with auxiliary sail.

The 1,308-ton USS *Fulton* also belongs here, although she began as a submarine tender commissioned on December 7, 1914. *Fulton* (AS-1) mounted two 3in/50 guns and a 37mm anti-aircraft gun. On September 29, 1930, *Fulton* was reclassified as a gunboat (PG-49) but spent the next two years surveying the Panama Canal Zone before transferring to the Asiatic Fleet. While off Hong Kong on March 14, 1934, *Fulton* was overcome by a shipboard fire, suffering three wounded. Her hulk was scrapped.

US steel gunboats 1905–23

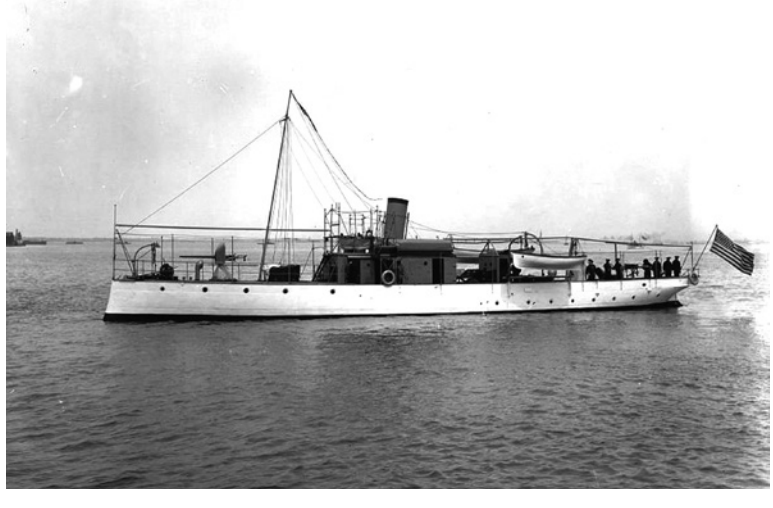
Ship	Built	US Navy service	Tons	Draft	Speed	Main guns
Dubuque (PG-17)	1904	1905–19	1,174	12ft	12kts	Six 4in/40
Paducah (PG-18)	1904	1905–45	1,174	12ft	12kts	Six 4in/40
Sacramento (PG-19)	1914	1914–46	1,237	12ft	12kts	Six 4in/40
Fulton (PG-49)	1914	1914–34*	1,308	13ft	12kts	Two 3in/50
Asheville (PG-21)	1918	1920–42*	1,575	11.5ft	12kts	Three 4in/50
Tulsa (PG-22)	1922	1923–46	1,575	11.5ft	12kts	Three 4in/50

** Lost in USN duty.*

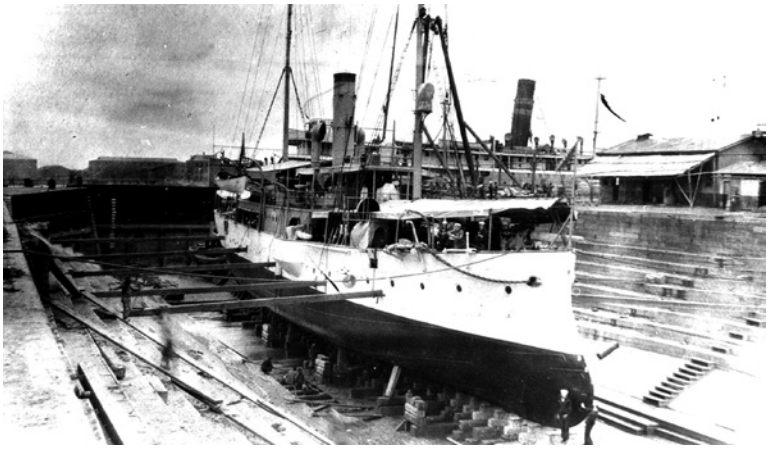
Spanish-American War prizes

In 1898 the United States captured numerous Spanish gunboats of various sizes. Keeping their original Spanish names, many were refurbished, overhauled to operate standardized American weapons, and recommissioned into US Navy service. At least one, USS *Alvarado*, saw action against her former masters before the end of the Spanish-American War. Most were small, skippered by a junior officer, and employed a crew of 30–35 enlisted men. Six served in China and received US Navy hull numbers PG-37 through PG-42 in July 1920.

Most of the captured Spanish gunboats had been built in Spain, the Philippines, or Hong Kong for Philippines service. The Philippines archipelago, with its 7,641 islands and 22,549 miles of coastline, was ideal for gunboat operations. Navigating Filipino rivers required a draft of 7ft or less to clear bars and shoals at the river mouths. Beyond this, major Filipino rivers were navigable up to 20–30 miles upstream, with river depths from 10–60ft. The rivers and lakes of Mindanao required a maximum draft of 3ft. The captured Spanish gunboats' small size and shallow draft therefore made them ideal for US Navy operations in the Philippine-American War. They helped transport US Army troops ashore and by 1899 their heavy automatic guns provided priceless heavy fire support against Filipino insurgents. By late 1900 some 21 former Spanish gunboats in



The 106-ton former Spanish gunboat USS *Alvarado*, *c.*1900. She was captured off Santiago de Cuba on July 17, 1898, and commissioned into US Navy service just two weeks later, on August 4. She had a US Navy complement of 33 men. (LOC)



The 620-ton USS *Elcano* is overhauled in a Shanghai drydock in the 1920s. On March 24, 1927, *Elcano* would shell the base of Nanking's Socony Hill, helping to break the Chinese siege of the American Consul General. (NHHC NH 69695)

the Philippines were in US Navy commission.

After being sunk at the Battle of Manila Bay, the small Spanish cruisers *Don Juan de Austria*, *Isla de Cuba*, and *Isla de Luzon* were raised, refitted in Hong Kong, and recommissioned into US Navy service as Philippines gunboats. The 1,015-ton USS *Don Juan de Austria* mounted four 5in guns and four 6-pdrs in US Navy service. She was a barque-rigged ship that employed one 1,200ihp horizontal compound engine for a speed of 12 knots. USS *Isla de Luzon* and USS *Isla de Cuba* were of the 950-ton *Isla de Luzon* class of protected cruisers. These employed an armored deck of up to 2.5in, and in their US Navy service mounted four 4in/40 guns, four 6-pdrs, and three 14in above-water torpedo tubes. The US Navy decommissioned all three vessels between 1904 and 1907, transferred them home to US state naval militias, and sold the last after World War I.

The converted Spanish gunboat *Urdaneta* serves as a case study. *Urdaneta* was built by the Philippines' Cavite Arsenal in 1883. She displaced 42 tons, was 69ft long, had a 12.5ft beam, and drew 4.75ft. A vertical compound steam engine drove one shaft at eight knots. After 15 years in Spanish service *Urdaneta* was captured by the Americans in 1898. After refurbishment, the US Navy commissioned her on June 2, 1899 as USS *Urdaneta*. Manned by 15 US Navy crewmen, she mounted "one 1-pdr, one 37mm mount, and one Colt machine gun." On September 17, 1899, *Urdaneta* ran aground on a mud shoal in the Orani River near Manila. Filipino insurgents enfiladed her with a heavy fire that killed several of her crewmen, including her commanding officer, Naval Cadet Welborn C. Wood. The Filipinos captured *Urdaneta* and her surviving crew. An expedition by Commander Charles C. Cornwell's USS *Petrel* eventually recaptured *Urdaneta*, which was recommissioned into US Navy service on May 12, 1900. The conclusion of the Philippine-American War in 1902 allowed a reduction in the US Navy's gunboat fleet. Most of the 1898 prizes were decommissioned, including *Urdaneta* on December 12, 1902.

B

USS *ANNAPOLIS* AND USS *ISLA DE LUZON*

1. USS *Annapolis* (PG-10) 1897. USS *Annapolis* and her sister ships were possibly the last major US warships that still heavily-resembled the old sailing men-of-war. She saw numerous small actions off Cuba and Puerto Rico, then served in the Asiatic between April 1901 and June 1904, and participated in Philippines counter-insurgency operations. *Annapolis* patrolled Pacific hotspots from April 1907 until patrolling the US East Coast in the summer of 1918. After 20 years on loan to the Pennsylvania Nautical School, she was struck on June 30, 1940.

2. USS *Isla de Luzon* – 1903. At 950 tons, USS *Isla de Luzon* was the second-largest Spanish gunboat to be refurbished and pressed into US Navy service. Commissioned on January 31, 1900, *Isla de Luzon* fought Filipino insurgents before departing Manila for the United States on August 15, 1902. After several stints in state militias and US Navy training duty, she was struck on July 23, 1919.

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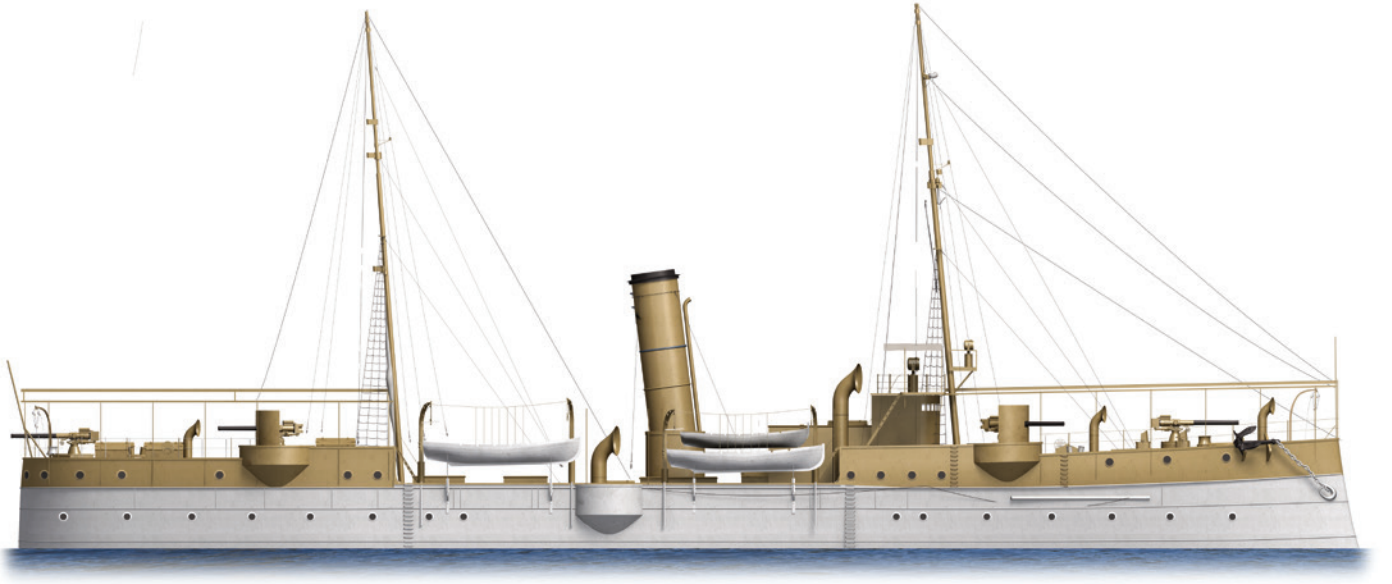


Captured Spanish gunboats in US Navy commission (1900)						
Ship	**Built**	**US Navy service**	**Tons**	**Draft**	**Speed**	**Main guns**
Callao (PG-37)	1888	1898–1916	243	6.5ft	10kts	One 6-pdr
Elcano (PG-38)	1884	1902–28	620	10ft	11kts	Four 4in
Pampanga (PG-39)	1888	1898–1928	243	7.5ft	10kts	One 6-pdr
Quiros (PG-40)	1896	1900–23	347	7.75ft	11kts	Two 6-pdrs
Samar (PG-41)	1887	1899–1920	243	7.5ft	10.5kts	One 6-pdr
Villalobos (PG-42)	1896	1900–28	270	7.5ft	11kts	Two 6-pdrs
Don Juan de Austria	1887	1900–19	1,015	12.5ft	12kts	Six 4in
Isla de Cuba	1886	1900–04	950	12.25ft	13kts	Four 4in
Isla de Luzon	1886	1900–19	950	11.5ft	11kts	Four 4in
Arayat	1888	1900–10	200	6.5ft	10kts	One 6-pdr
Paragua	1888	1898–1911	200	6.5ft	10kts	One 6-pdr
Albay	1886	1899–1904	150	6.75ft	8kts	One 6-pdr
Calamianes	1887	1899–1902	150	6.75ft	8kts	One 3-pdr
Leyte	1890	1900–02	150	6.75ft	8kts	One 6-pdr
Manileño	1887	1899–1900	142	6ft	6.5kts	One 6-pdr
Mariveles	1886	1899–1901	142	6ft	7kts	One 3-pdr
Mindoro	1886	1899–1909	142	6.75ft	7kts	One 3-pdr
Panay	1884	1899–1907	142	7ft	8kts	One 6-pdr
Basco	1881	1899–1908	42	4.75ft	8kts	One 1-pdr
Gardoqui	1882	1899–1902	42	4.75ft	8kts	Two 1-pdrs
Urdaneta	1883	1899–1902	42	4.75ft	8kts	One 1-pdr

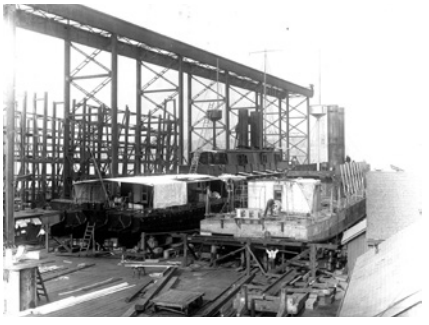
River gunboats (PR)

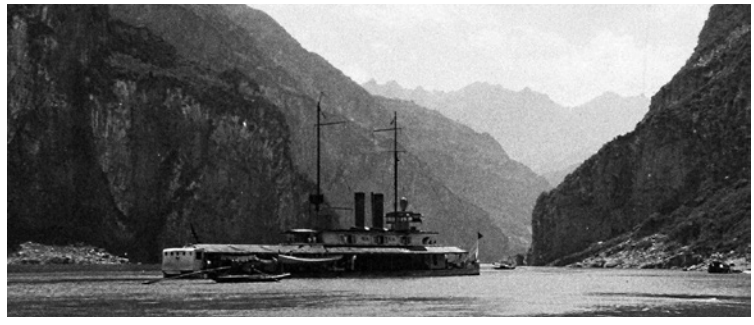
Rising in the Himalayas, China's 3,900-mile long Yangtze is the world's third-longest river and the sixth largest by volume. One-third of China's population lives in its basin. Before its 21st century damming, the Yangtze flooded seasonally between May and November, when river levels could rise 50ft overnight. Over half of both Chinese and Chinese–American trade traveled via the Yangtze in the 1920s and 1930s. Such wealth attracted armed river pirates, who ambushed steamers and junks in search of plunder and hostages. Multiple foreign nations, including the United States, attempted to police Yangtze River trade via gunboat. Concerning US gunboat operations, the Yangtze could be separated into three major sections. Beginning from the Pacific mouth and moving upriver they were:

Shanghai to Hankow (600 miles inland)
Hankow to Ichang (600–970 miles inland)
Ichang to Chungking (970–1,400 miles inland)

The mountainous third section, beginning above Ichang, is the location of the spectacular Yangtze gorges and their correspondingly treacherous rockfalls, whirlpools, and 14-knot rapids. Such terrain and conditions were ideally suited for ambushes, and bandit activity was high. Safely navigating the powerful Yangtze rapids required a maximum 5.25ft draft, minimum 12 knots (preferably 14 knots) speed, great maneuverability, and sturdy construction. Loss of propulsion or steering in the powerful rapids typically meant loss of ship and crew.

The US Navy had first requested a gunboat to navigate the upper Yangtze in 1903. Only in 1912 did some bright paper-pusher recall an 1898 congressional appropriation for a long-canceled Great Lakes gunboat. Creative budgeting and qualitative shortcuts allowed not one but two river





gunboats to be squeezed out of the original $260,000 appropriation. USS *Palos* (PG-16) and USS *Monocacy* (PG-20) were built in California to an obsolete British design, dismantled, shipped to China, and reassembled at the Shanghai Dock and Engineering Company in early 1914.

Palos and *Monocacy* displaced 204 tons, were 165.5ft long, drew 2.5ft, and mounted two 6-pdrs and six 0.30-caliber Lewis guns. Two lightly constructed vertical compound engines delivered 1,600ihp to twin shafts for a speed of 12.3 knots. Unfortunately, *Palos* and *Monocacy* were "obsolete even as they slid down the launching ways." In rapids they handled poorly, and their low, bluff bows shipped water. *Palos* nevertheless became the first US gunboat to conquer the Yangtze gorges when she reached Chungking, 1,400 miles inland, on August 28, 1914. Except for annual trips to Shanghai for overhauls, she and *Monocacy* would patrol the Upper Yangtze for the next 15 years.

On December 19, 1924, Congress authorized six new Yangtze River gunboats, designated PG-43 through PG-48. US Navy specifications required triple rudders and twin shafts in protective tunnels. The US Navy desired modern and efficient diesel engines but realized logistic support in China was unlikely. Oil-fired steam reciprocating engines of improved efficiency were employed instead. Two high-angle 3in anti-aircraft guns each would counter pirate fire from the Yangtze's steep cliffs, but also anticipated eventual warlord air attacks.

USS *Guam* (PG-43) was the first to be commissioned on December 28, 1927. Along with *Palos* and *Monocacy* the six new river gunboats were assigned the new PR ("River Gunboat") hull designation on July 15, 1928 and accordingly renumbered. The two smallest gunboats, *Guam* (PR-3) and *Tutuila* (PR-4), could navigate the upper Yangtze year-round, even steaming above Chungking. The four larger gunboats could generally only navigate the upper Yangtze during the May–September high-water season. Overall, the six new river gunboats were well-liked by their Yangtze Patrol crews.

ABOVE LEFT
The purpose-built river gunboats USS *Palos* (PG-16/PR-1) and USS *Monocacy* (PG-20/PR-2) under their initial construction at the Mare Island Naval Shipyard, California, in 1913. They were then disassembled, shipped to Shanghai, and reassembled. Yangtze Patrol sailors inevitably nicknamed *Palos* and *Monocacy* the "Pathos" and "Monotony." (US Navy)

ABOVE RIGHT
USS *Monocacy* navigates the Yangtze Gorges in 1916, quite possibly helmed by a veteran Chinese pilot. The upper Yangtze claimed about a thousand lives a year, and its course was marred by the shattered wrecks of many an unlucky steamer. (NARA)

River gunboats (PR)

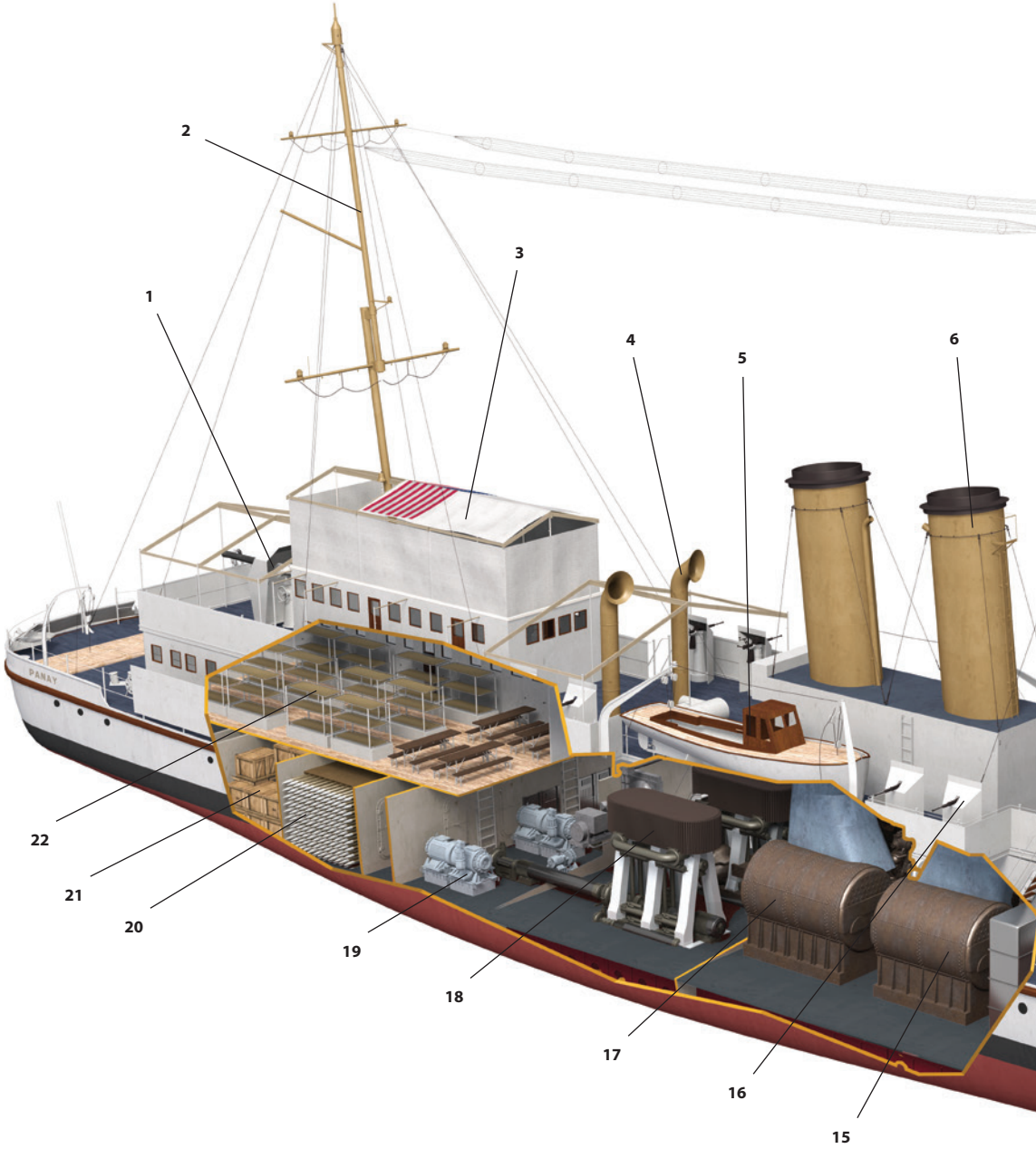
Ship	Built	US Navy service	Tons	Draft	Speed	Main guns
Palos (PG-16/PR-1)	1914	1914–37	204	2.5ft	13kts	Two 6-pdrs
Monocacy (PG-20/PR-2)	1914	1914–39	204	2.5ft	13kts	Two 6-pdrs
Guam (PG-43/PR-3)	1927	1927–41*	380	5.25ft	14kts	Two 3in/23
Tutuila (PG-44/PR-4)	1928	1928–42	380	5.25ft	14kts	Two 3in/23
Panay (PG-45/PR-5)	1928	1928–37*	450	5.5ft	15kts	Two 3in/50
Oahu (PG-46/PR-6)	1928	1928–42*	450	5.5ft	15kts	Two 3in/50
Luzon (PG-47/PR-7)	1928	1928–42*	560	6ft	16kts	Two 3in/50
Mindanao (PG-48/PR-8)	1928	1928–42*	560	6ft	16kts	Two 3in/50

** Lost in service*

C

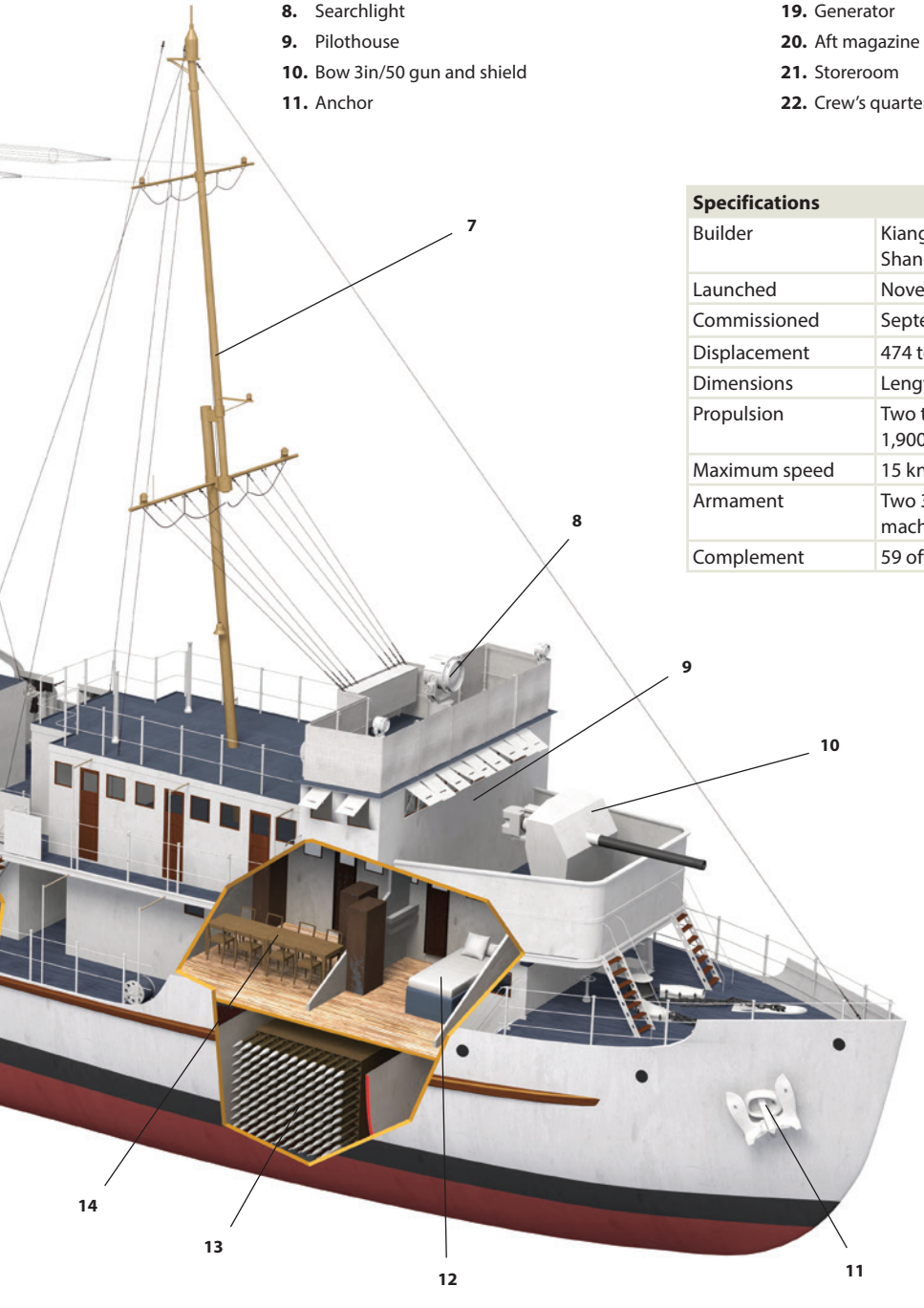
USS *PANAY* (PG-45/PR-5) 1937

Yangtze river gunboat *Panay* is seen at the time of her December 1937 attack above Nanking. In 1925 the US Navy contracted Shanghai's highly experienced Kiangnan Dock and Engineering Works to build all six river gunboats. Two each were built to three similar designs that differed slightly in size. The designs themselves were drawn up by Kiangnan to US Navy requirements. All six gunboats were laid down in 1926. Their powerplants, auxiliary motors, armament, and structural steel were shipped from the United States for assembly in Shanghai.



KEY

1. Stern 3in/50 gun and shield
2. Mainmast
3. Awning
4. Cowl ventilator
5. Launch
6. Funnel
7. Foremast
8. Searchlight
9. Pilothouse
10. Bow 3in/50 gun and shield
11. Anchor
12. Stateroom
13. Bow magazine
14. Officer's wardroom
15. Fore boiler
16. 0.30-caliber machine gun and shield
17. Aft boiler
18. Vertical triple expansion (VTE) engine
19. Generator
20. Aft magazine
21. Storeroom
22. Crew's quarters



Specifications	
Builder	Kiangnan Dock and Engineering Works, Shanghai, China
Launched	November 10, 1927
Commissioned	September 10, 1928
Displacement	474 tons
Dimensions	Length: 191ft; Beam: 29ft; Draft: 5ft, 3in
Propulsion	Two triple expansion engines delivering 1,900 horsepower to two shafts in tunnels
Maximum speed	15 knots
Armament	Two 3in/50 guns, eight 0.30-caliber machine guns
Complement	59 officers and men

The monitor USS *Monterey* (BM-6) viewed at Mare Island Shipyard in 1896. *Monterey* was unique in mounting a mixed main battery of two 10in guns (after turret) and two 12in guns (forward turret). (US Navy)

Steel monitors (BM)

The US Navy's ten large steel-constructed monitors were designed for harbor defense but were instead assigned to gunboat squadrons and performed gunboat missions. What tactically distinguished monitors from the usual gunboats was the monitors' heavy battleship guns and armor, the former comprising two to four 12in or 10in guns in double turrets. Additionally, monitors were marked by extremely low freeboard, which made them difficult targets but badly hindered seakeeping and habitability. Top speed was 11–13 knots.

Congress authorized the 6,060-ton Puritan and the 3,815-ton Amphitrite-class in 1874. Apathy and severe corruption meant the first monitor to be built, *Miantinomoh* (BM-5), was not commissioned until October 27, 1891, the remaining four (BM-1 through BM-4) not being commissioned until 1895–96. In 1887 Congress authorized the 4,084-ton *Monterey* (BM-6), which was commissioned on February 13, 1893. Four monitors saw action off Cuba and Puerto Rico. By August 1898, the two West Coast monitors *Monadnock* (BM-3) and *Monterey* had been permanently transferred to the Asiatic, where they provided fire support during the Philippine-American War. In 1898 Congress authorized four new 3,225-ton Arkansas-class monitors (BM-7 through BM-10) which entered service in 1900–01. The last active US monitor, *Cheyenne* (BM-10; ex-*Wyoming*), was decommissioned on June 1, 1926.

Steel monitors (BM)

Ship	Built	US Navy service	Tons	Draft	Speed	Main guns
Puritan (BM-1)	1896	1896–1910	6,060	18ft	12.5kts	Four 12in/35
Amphitrite (BM-2)	1895	1895–1919	3,815	14.5ft	10.5kts	Four 10in/30
Monadnock (BM-3)	1895	1896–1919	3,815	14.5ft	11.5kts	Four 10in/30
Terror (BM-4)	1895	1896–1906	3,815	14.5ft	12kts	Four 10in/30
Miantinomoh (BM-5)	1891	1891–1907	3,815	14.5ft	10.5kts	Four 10in/30
Monterey (BM-6)	1892	1893–1921	4,084	14ft	13.5kts	Two each 12in/10in
Arkansas (BM-7)	1902	1902–19	3,225	12.5ft	12kts	Two 12in/40
Nevada (BM-8)	1902	1903–19	3,225	12.5ft	13kts	Two 12in/40
Florida (BM-9)	1902	1903–22	3,225	12.5ft	12.5kts	Two 12in/40
Wyoming (BM-10)	1902	1902–26	3,225	12.5ft	12.5kts	Two 12in/40

World War II gunboats 1936–42

The major naval powers convened the 1930 London Naval Conference largely to address the unfolding cruiser arms race. Two major cruiser types were defined: the "heavy cruiser" mounting a maximum 8in gun, and the "light cruiser" mounting a maximum 6.1in gun. Both types were limited to 10,000 tons displacement each, and each navy accepted a specific "global" cruiser tonnage ceiling (323,500 tons for the US Navy).

The US delegation successfully proposed an exempt gunboat class as a partial substitute for large numbers of full-fledged cruisers, which Britain needed but the US did not. These would displace between 600 and 2,000 tons and were exempt from total tonnage limits. This type was limited to

20 knots, a maximum gun caliber of 6.1in, and was prohibited from mounting torpedoes. It was imagined as a versatile peace-cruiser type that could perform gunboat and convoy escort roles. Admiral William V. Pratt (Commander-in-Chief, US Fleet) had secured the 20-knot limit over Britain's desired 18 knots by claiming the extra speed was needed to overtake rum smugglers. In fact, Pratt secretly hoped the gunboats could be used as fleet auxiliaries and even ersatz destroyers to screen the US Navy's 20-knot battleship fleet.

The wrecked gunboat USS *Erie* (PG-50) on December 2, 1942, after she was towed into Willemstadt's Macola Bay near Curaçao. A torpedo fired by U-boat U-163 had damaged her beyond economical repair on November 12. (NARA)

Two Erie-class gunboats were authorized on June 16, 1933. *Charleston* (PG-51) was laid down at the Charleston Naval Yard, South Carolina on October 27, 1934, followed by *Erie* (PG-50) at the New York Navy Yard on December 17, 1934. USS *Erie* was commissioned on July 1, 1936, followed by USS *Charleston* seven days later. The Erie-class displaced 2,000 tons standard and was 328.5ft long. Beam was 41.5ft and draft 14.83ft at full load. Two Babcock & Wilcox boilers supplied steam. Two Parsons-geared single-reduction steam turbines drove two shafts at a design speed of 20 knots while range was 8,000nm at 12 knots. Main armament was four 6in/47 guns, while four quadruple 1.1in/75 guns, later augmented by four 20mm Oerlikons, provided antiaircraft defense. Two Mark 6 depth charge racks (15 depth charges each) provided an ASW capability. The Eries were eventually outfitted with a Mark 3 radar and ASDIC sonar. A single floatplane was also deployed while a 3.5in side belt and 1.25in armored deck provided protection.

In June 1942, USS *Erie* was transferred to the Caribbean via the Panama Canal to fight the U-boat offensive, and within days had picked up survivors of several sunken British and American ships. On November 10, 1942, *Erie* led convoy TAG-20 out of Port-of-Spain, Trinidad for Guantánamo Bay. At 1703hrs, November 12, U-boat U-163 struck *Erie* with a single torpedo. Numerous secondary explosions put *Erie* on the shallow bottom 100yds off Curaçao, killing seven of her crew and wounding 11. *Erie* capsized under salvage on December 5, 1942.

In November 1940, *Charleston* became flagship of the 13th Naval District, Alaska sector – the so-called "Alaskan Navy." After five cruises to Alaska and the Aleutian Islands from Seattle, *Charleston* permanently transferred to Kodiak, Alaska in December 1941. She would operate out of Kodiak and Dutch Harbor the next four years, escorting convoys and supporting the grueling 1942–43 Aleutian counteroffensive.

In May 1943, *Charleston* participated in Operation *Landcrab*, the US reconquest of Alaska's

The bow of the Alaska-based gunboat USS *Charleston* (PG-51) coated in ice in January 1943. Between November 1945 and February 1946, *Charleston* toured the Chinese ports of Hong Kong and Shanghai, perhaps the last US Navy gunboat to do so. (US Navy)

Attu island, in which she provided convoy escort and naval fire support. On the afternoon of May 22, *Charleston* and the destroyer *Phelps* were patrolling the entrance to Attu's Holtz Bay when they were attacked out of the fog by 15 Japanese G4M "Betty" bombers. Six of the bombers strafed and launched torpedoes at *Charleston*. One torpedo passed 50yds ahead, one paralleled *Charleston* 25yds to port, and two more passed 50 and 100yds astern. No torpedoes struck, but *Charleston* suffered 18 bullet holes from strafing. In return, *Charleston*'s antiaircraft fire shot down one of the bombers and exploded a dropped torpedo in mid-air.

In 1940 the US Navy started requisitioning civilian vessels and converting them into gunboats, beginning with USS *Niagara* (PG-52). The last of the American-built wartime Patrol Gunboats were commissioned by June 1942. Subsequent US Navy vessels assigned PG hull numbers were overwhelmingly foreign-built (many were British Flower-class corvettes) or were reclassified as Patrol Frigates (PF) in April 1943 before they were commissioned. Many Patrol Frigates were transferred to Britain's Royal Navy as Lend-Lease.

World War II patrol gunboats (PG)

Ship	Built	US Navy service	Tons	Draft	Speed	Main guns
Erie (PG-50)	1936	1936–42*	2,000	14.75ft	20kts	Four 6in/47
Charleston (PG-51)	1936	1936–46	2,000	14.75ft	20kts	Four 6in/47
Niagara (PG-52)	1929	1941–43*	1,038	17ft	16kts	Two 3in/50
Vixen (PG-53)	1929	1941–46	3,774	17ft	15kts	Four 3in
St. Augustine (PG-54)	1929	1941–44*	1,720	14.5ft	14kts	Two 3in/50
Jamestown (PG-55)	1928	1941–46	1,780	16ft	15kts	Two 3in/50
Williamsburg (PG-56)	1930	1941–53	1,085	16ft	16kts	Two 3in
Plymouth (PG-57)	1931	1941–43*	1,500	19ft	15kts	One 4in
Hilo (PG-58)	1931	1942–46	2,350	17ft	14.5kts	One 3in/50
San Bernardino (PG-59)	1929	1942–46	1,768	16ft	17kts	Two 3in/50
Beaumont (PG-60)	1930	1942–46	1,434	12.5ft	15.5kts	Two 3in/50
Dauntless (PG-61)	1921	1942–46	1,950	16.25ft	16kts	Two 3in/50

** Lost in US Navy service*

Armed yachts 1898–1945 (PY)

In early 1898 the US Navy prepared to quickly expand in response to the looming Spanish-American War. An eventual 28 steam-powered pleasure yachts were purchased or leased and the US Navy converted them into makeshift gunboats. The conversion process saw lavish interiors gutted, extraneous rigging cut away, guns mounted, ⅞in steel decking worked over machinery, and luxuriant hulls painted dull gray. After conversion, the vessels were commissioned into US Navy service as "armed yachts." Ironically, the

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USS *ISABEL* AND USS *CHARLESTON*

1. USS *Isabel* (PY-10) 1937. The patrol yacht USS *Isabel* is seen in 1937 with the Asiatic Fleet, sporting all white. In addition to four 3in/50 guns, she mounted four 21in torpedo tubes early in her career. *Isabel* saw action against Germany in World War I, then against Chinese bandits during the Warlord Era, and finally against the Japanese during World War II.

2. USS *Charleston* (PG-51) 1944. Erie-class gunboat USS *Charleston* is viewed in 1944 while serving in Alaskan waters. She wears Measure 31/3d dazzle camouflage. *Charleston* saw heavy action during the May 1943 Battle of Attu; during a single three-day period, she contributed 951 6in shells in naval fire support.

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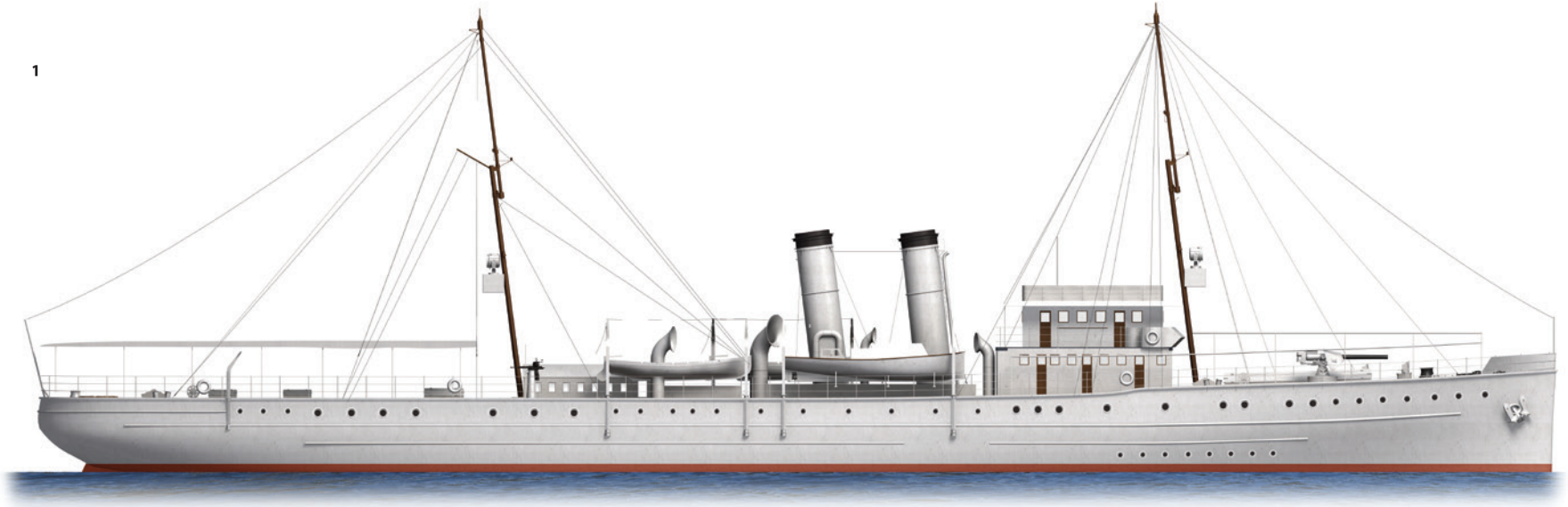

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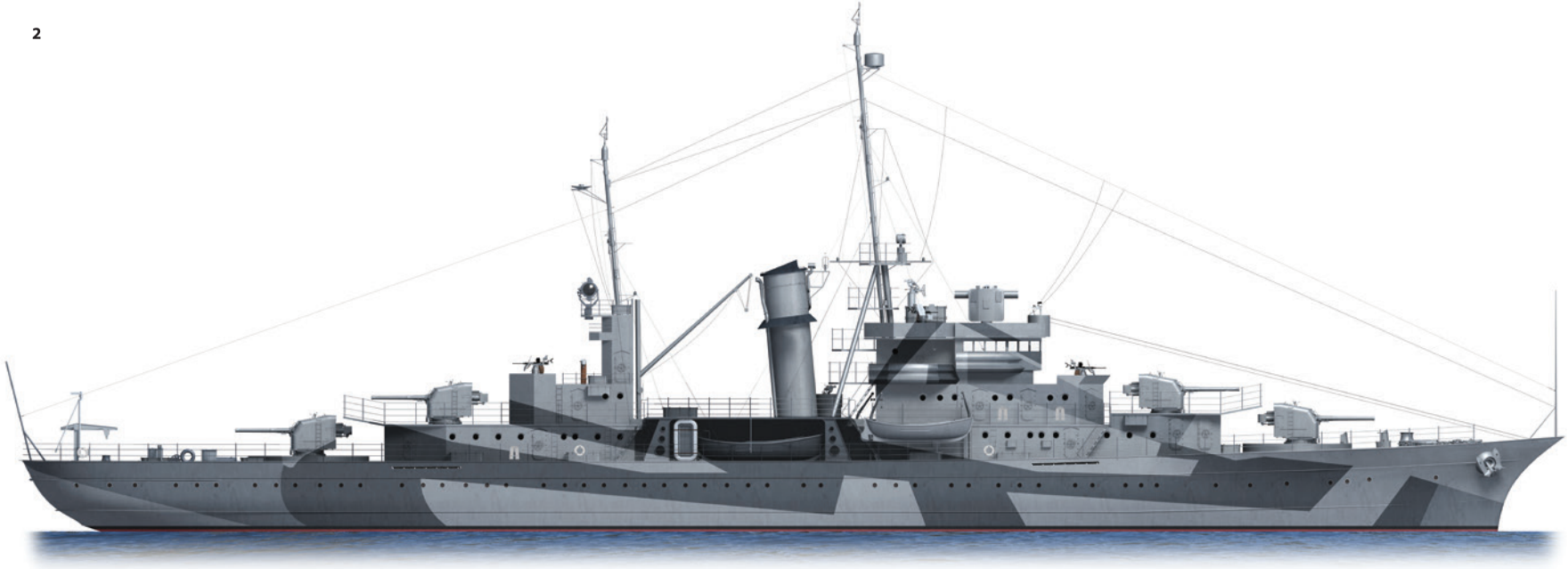
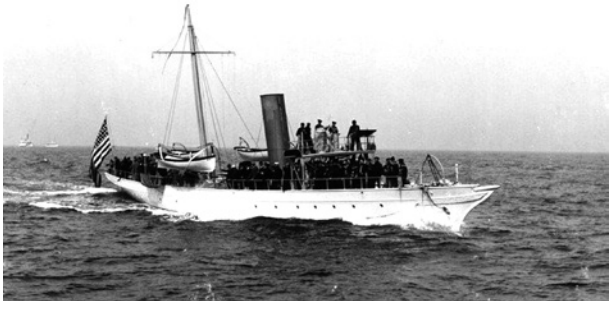




The unnumbered armed yacht USS *Aileen* cruises peaceful waters in 1899. She is powered by a single 500hp triple expansion engine. *Aileen*'s haze gray wartime paint scheme has been replaced by the US Navy's contemporary peacetime colors of white hull and ocher superstructure. (NHHC NH 98246)

term "yacht" derives from the Dutch *jacht* ("hunter") and first described small, fast warships of the 1600s Dutch Republic.

During 1898, the US Navy's smaller and slower-armed yachts performed auxiliary duties, such as harbor patrol and offshore picket duty. However, a handful of the largest and fastest yachts served with the blockading US fleet and saw heavy action. Five survived to 1922 and received the PY (Patrol Yacht) designation.

The US Navy's use of the term *yacht* was ill-defined. In 1898 US Navy yachts were often simply called gunboats. The US Navy's 1902 *Annual Report* listed all Spanish-American War armed yachts as *Gunboats (converted*), with *yacht* nowhere mentioned. Beginning in 1916, the US Navy began registering civilian pleasure craft and yachts for potential wartime requisition and service. Each was given an SP ("Section Patrol") number, which anticipated the July 1920 hull-number system. By 1918, the US Navy had ultimately registered over 4,000 vessels, although many were transports and freighters later given ID ("Identification") numbers within the same sequence. However, several hundred were commissioned as patrol vessels, with the smallest mere motorboats or luggers of just a handful of tons. Arguably the finest was the 26-knot, 710-ton USS *Isabel* (SP-521), a virtual destroyer. *Isabel* was redesignated PY-10 in 1920 and ultimately served until decommissioned on February 11, 1946 and struck 15 days later.

After the 1940 fall of France, the US Navy would again requisition and commission scores of civilian vessels as minor warships. The first of 21 official patrol yachts, USS *Sylph* (PY-12), was commissioned on October 1, 1940 and the last, USS *Southern Seas* (PY-32), on December 22, 1942.

Spanish-American War armed yachts

Ship	Built	US Navy service	Tons	Draft	Speed	Main guns
Mayflower (PY-1)	1896	1898–1929	2,690	17ft	17kts	Six 6-pdrs
Hawk (PY-2)	1891	1898–1940	545	11.5ft	14.5kts	One 3-pdr
Scorpion (PY-3)	1896	1898–1927	775	11ft	11kts	Four 5in /40
Vixen (PY-4)	1896	1898–1922	806	12.75ft	16kts	Eight 6-pdrs
Sylph (PY-5)	1890	1898–1929	152	7.5ft	15kts	One 6-pdr
Yankton	1893	1898–1920	975	13.75ft	14kts	Two 3in/50
Gloucester	1891	1898–1919	786	12ft	17kts	Four 6-pdrs
Wasp	1898	1898–1919	630	12ft	16.5kts	Four 6-pdrs
Frolic	1892	1898–1907	607	10.5ft	11kts	Two 3-pdrs
Hist	1895	1898–1911	472	10ft	14.5kts	Three 3-pdrs
Eagle	1890	1898–1919	434	11.5ft	12kts	Two 6-pdrs
Stranger	1880	1898	369	9.25ft	14kts	Two 3-pdrs
Siren	1897	1898	315	11ft	13kts	One 3-pdr
Sylvia	1882	1898–1917	302	10ft	9kts	One 3-pdr
Hornet	1890	1898	301	11ft	15kts	Three 6-pdrs
Viking	1883	1898–1899	218	8.5ft	11.5kts	One 3-pdr
Aileen	1896	1898–1919	192	8ft	14kts	One 3-pdr
Restless	1887	1898	137	8.5ft	13kts	Six 6-pdrs
Inca	1898	1898	120	7ft	14kts	One 1-pdr

Numbered World War I patrol yachts						
Ship	**Built**	**US Navy service**	**Tons**	**Draft**	**Speed**	**Main guns**
Nokomis (PY-6)	1914	1917–38	1,265	12.75ft	17kts	Four 3in/50
Aramis (PY-7)	1916	1917–21	375	7.5ft	13kts	Two 6-pdrs
Despatch (PY-8)	1913	1917–21	237	6ft	16kts	Two 3-pdrs
Niagara (PY-9)	1898	1918–31	2,690	17ft	13kts	Four 4in/50
Isabel (PY-10)	1917	1917–46	710	8.5ft	26kts	Four 3in/50
Wenonah (PY-11)	1915	1917–19	470	10ft	10kts	Two 3in/50

World War II patrol yachts						
Ship	**Built**	**US Navy service**	**Tons**	**Draft**	**Speed**	**Main guns**
Sylph (PY-12)	1929	1940–45	810	16.75ft	11kts	One 3in
Siren (PY-13)	1929	1940–44	720	14ft	11.5kts	Two 3in
Argus (PY-14)	1929	1941–46	859	12ft	14.5kts	One 3in
Coral (PY-15)	1914	1941–43	790	13ft	14kts	Two 3in
Zircon (PY-16)	1929	1941–46	1,220	13ft	14kts	Two 3in/50
Jade (PY-17)	1926	1941–44	582	13ft	14kts	One 3in
Turquoise (PY-18)	1922	1940–43	565	11ft	Unknown	One 3in/50
Carnelian (PY-19)	1930	1941–46	500	11ft	12kts	One 3in
Tourmaline (PY-20)	1930	1941–45	750	10.5ft	13kts	Two 3in/50
Ruby (PY-21)	1930	1941–45	640	10.5ft	13.5kts	One 3in/50
Azurlite (PY-22)	1928	1942–46	1,200	12ft	13kts	Two 3in/50
Beryl (PY-23)	1930	1942–46	1,220	13.5ft	14kts	Two 3in/50
Almandite (PY-24)	1927	1942–46	705	10.5ft	12kts	One 3in/50
*Crystal (*PY-25)	1929	1942–46	Unknown	13ft	18kts	Two 3in/50
*Cythera (*PY-26)	1907	1942*	1,000	12ft	15.5kts	Three 3in/50
*Girasol (*PY-27)	1926	1942–46	700	11ft	12kts	One 3in/50
Marcasite (PY-28)	1928	1942–44	1,130	17ft	12kts	Two 3in/50
Mizpah (PY-29)	1926	1942–46	607	10ft	14kts	Two 3in/50
Hydrographer (PY-30)	1928	1942–46	1,044	11.5ft	10kts	Two 3in/50
Cythera (PY-31)	1931	1942–46	800	11ft	15kts	One 3in/50
Southern Seas (PY-32)	1920	1942–45*	1,116	14.25ft	11kts	Unknown
** Lost in USN duty.*						

Special flagships 1905–77

The US Navy adopted or converted various gunboats/yachts for special VIP service. These were mainly flagships for US presidents (presidential yachts) or the occasional wartime admiral. Their post-US Navy careers were typically colorful and exotic and several survive today.

In 1905, Spanish-American War veteran USS *Mayflower* (PY-1) was pressed into US presidential yacht service until being decommissioned on March 22, 1929. *Mayflower* returned to US Navy service on 31 July, 1942 as USS *Butte*, before transferring to the US Coast Guard as USCGC *Mayflower* (WPE-183) on September 6, 1943, for convoy escort. Decommissioned on July 1, 1947 and sold on January 8, 1947, she secretly transported the *Exodus* Jews to Palestine in 1948, then served in the Israeli Navy between 1950 and 1955 as INS *Maoz*.

In 1931 the US Department of Commerce purchased the 90-ton luxury yacht *Sequoia* to bait Chesapeake and Delaware Bay bootleggers into illegal liquor sales. President Herbert C. Hoover subsequently adopted *Sequoia* as his

The gunboat USS *Vixen* (PG-53) seen during World War II. She served as Admiral Ernest J. King's United States Fleet flagship until June 1942, then was transferred to Atlantic Fleet commander Admiral Royal E. Ingersoll. *Vixen* survived to become a Greek liner. After operating as a floating hotel for the 2004 Athens Olympics, she was scrapped. (NARA)

World War II US Navy commander-in-chief Admiral Ernest J. King largely conducted the US Navy's war from his flagship USS *Dauntless* (PG-61). She is seen moored at the Washington Navy Yard in wartime camouflage in 1943. She survives today as the civilian yacht *Delphine*, homeported in Monaco. (NARA)

unofficial presidential yacht. Two years later, the US Navy requisitioned *Sequoia* and commissioned her as the auxiliary gunboat USS *Sequoia* (AG-23). After an elevator was installed, *Sequoia* was heavily used by the wheelchair-bound President Franklin D. Roosevelt.

The wooden-hulled *Sequoia* was an obvious fire hazard and in 1935 the US Navy replaced her with the 13-knot, steel-constructed 370-ton Coast Guard cutter USCGC *Electra*. After a $60,000 refurbishment, including wheelchair accommodations, *Electra* recommissioned as USS *Potomac* (AG-25) on March 2, 1936. She mounted one 3in/23 gun. *Potomac* helped deliver Roosevelt to the secret August 1941 Argentia Conference and currently survives as a museum ship in Oakland, California.

In April 1941 the US Navy acquired the diesel-powered, steel-constructed civilian yacht *Aras* and on October 7, 1941, commissioned her as the 1,805-ton gunboat USS *Williamsburg* (PG-56). *Williamsburg* mounted two 3in/50 guns, six .50-caliber machine guns, two .30-caliber machine guns, and two depth charge racks. She reached Reykjavík, Iceland in December 1941 and served as Rear Admiral James L. Kauffman's flagship until mid-1942. *Williamsburg* patrolled the North Atlantic the following year before cruising the US East Coast as Rear Admiral Donald B. Beary's flagship. She replaced *Potomac* as the official presidential yacht in 1945, before being decommissioned by President Dwight D. Eisenhower on June 30, 1953.

In November 1940 the US Navy requisitioned the German-built, 1929 steel-hulled yacht *Orion* and in March 1941 commissioned her as the 3,774-ton gunboat USS *Vixen* (PG-53). The 15-knot *Vixen* mounted four 3in/50 guns, seven .50-caliber machine guns, two .30-caliber machine guns, and two depth charge racks. She served throughout the war as an Atlantic-based flagship for four consecutive admirals: Rear Admiral Richard S. Edwards (Commander, Atlantic Submarines), Admiral Ernest J. King (Commander-in-Chief, US Fleet), Admiral Royal E. Ingersoll (Commander, Atlantic Fleet), and Admiral Jonas H. Ingram (Commander, Atlantic Fleet). *Vixen* was decommissioned on May 24, 1946 and struck on July 3 that year.

As the US Navy's wartime commander-in-chief, King demanded his own custom flagship. He eventually selected the 1921 Great Lakes yacht *Delphine*, built for the late automotive tycoon Horace E. Dodge. Displacing 1,950 tons and mounting two 3in/50 DP guns, on May 11, 1942 *Delphine* was commissioned as the gunboat USS *Dauntless* (PG-61). Throughout the war, King lived aboard *Dauntless*, which was almost permanently moored

at the Washington Navy Yard. *Dauntless*' crew drew sea pay despite almost never going to sea. The US Navy sold *Dauntless* back to the Dodge family after the war.

Although USS *Sequoia* (AG-25) had technically been decommissioned in 1936, she remained US Navy property and unofficially served as a presidential yacht for presidents Harry S. Truman, Dwight D. Eisenhower, John F. Kennedy, Lyndon B. Johnson, Gerald R. Ford, and Jimmy E. Carter. During her career she hosted such foreign notables as Winston Churchill, Clement Atlee, Bernard Montgomery, Leonid Brezhnev, and Emperor Hirohito. By the mid-1970s, *Sequoia* cost US taxpayers $800,000 annually. President Carter considered *Sequoia* a wasteful emblem of the "imperial presidency" and in May 1977 he sold the yacht at auction for $286,000, ending the presidential yacht tradition.

SPANISH-AMERICAN WAR 1898

Manila Bay

A host of complicated issues incited the Spanish-American War in April 1898. In addition to the more famous battleships and large cruisers, the wartime US Navy would employ a total of 18 gunboats, six steel monitors, three unprotected cruisers, and 28 armed yachts.

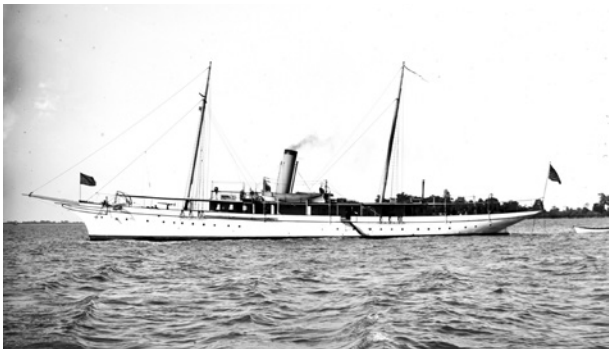
At dawn May 1, 1898, Commodore George Dewey's Hong Kong-based US Asiatic Fleet charged into Manila Bay in the Spanish-occupied Philippines. Arranged in column were Dewey's cruiser flagship *Olympia*, the cruisers *Baltimore* and *Raleigh*, gunboats *Petrel* and *Concord*, and cruiser *Boston*. Defending Manila Bay were seven undersized, dilapidated, and obsolete Spanish cruisers and gunboats, plus a handful of equally obsolete Spanish coastal batteries. Spanish guns opened fire at 0505hrs; the Americans returned fire at 0540hrs.

Over the next seven hours Dewey's squadron methodically destroyed the Spanish ships and batteries, while suffering little damage. *Concord* fired on the Spanish transport *Mindanao* and forced its abandonment. *Petrel*'s fire straddled government buildings ashore shortly after midday, and the Spaniards lowered their colors. Dewey subsequently ordered *Petrel* and *Concord* to finish off the burning and abandoned Spanish vessels. *Petrel* then steamed to the Cavite naval base and forced its surrender. The following day *Petrel* landed a party that occupied Cavite and appropriated five launches. In one of the most decisive battles in history, the Americans had effectively won the Philippines at a cost of nine wounded to the Spaniards' 161 killed and 210 wounded.

Cuba and Puerto Rico

Back off Key West, Florida, the gunboat *Nashville* (PG-7) had fired the first shot of the war on April 28 – a 6-pdr over the bow of the oblivious Spanish merchantman *Buena Ventura*, which promptly surrendered. Within days the US Navy began executing the planned close blockade of Spanish-occupied Cuba.

On May 11, 1898, a US Navy squadron comprising the gunboats *Machias* and *Wilmington*, torpedo boats *Foote* and *Winslow*, and revenue cutter *Hudson* entered northern Cuba's Cárdenas bay. Once inside, the Spanish



In April 1898 the US Navy requisitioned the civilian yacht *Hermione* and commissioned her as the 545-ton armed yacht USS *Hawk* (PY-2). By early May *Hawk* was engaged in the blockade of Cuba. The following month she intercepted and destroyed the Spanish blockade-runner *Alphonso XII*. Now wearing peacetime white, *Hawk* is seen operating with the Ohio Naval Militia in the early 1900s. (LOC)

gunboats *Ligera* and *Alerta*, armed tug *Alerta*, and shore batteries opened a withering short-range fire on *Winslow,* virtually disabling her. *Machias* and *Wilmington* retaliated, knocking out the merchant vessel *Antonio López*. Under fire, *Hudson* managed to tow *Winslow* out of range. The US Navy squadron withdrew with five dead and two wounded, to two Spaniards wounded.

By June 10, over 500 US marines had landed at Guantánamo Bay to secure its use as a coaling harbor. After several days of intense Spanish counterattacks, on June 14 some 200 marines and Cuban guerillas attacked the Spanish-held Cuzco Well. The gunboat *Dolphin* was supposed to support the attack by shelling the nearby Spanish blockhouse and fortifications, but she unknowingly began dropping friendly fire into a flank attack of about 60 marines and Cubans. Highly exposed to Spanish fire, Sergeant John H. Quick leaped atop a high ridge and calmly wig-wagged fire direction to *Dolphin* with his improvised signaling flag, an event memorably recorded by embedded correspondent Stephen Crane. Her aim corrected, *Dolphin* subsequently began hitting the Spanish fortifications, and Quick survived to be awarded the Medal of Honor. By afternoon, *Dolphin* and the marines had expelled the Spaniards and successfully destroyed the Cuzco Well. The Americans would fully secure Guantánamo Bay by June 16.

On June 28, 1898, the US Navy extended its blockade across southern Cuba and Puerto Rico. Two days later, on June 30, a US Navy gunboat flotilla comprising the converted yachts *Hornet*, *Hist*, and armed tug *Wompatuck* sighted the 30-ton Spanish gunboat *Centinela* off Cuba's Niguero Bay. After a short gunfight the Americans drove *Centinela* aground. Continuing towards Manzanillo, the Americans then attacked the Spanish gunboats *Guantánamo*, *Estrella*, and *Delgado Parejo*, plus three armed pontoons. Accurate Spanish counterfire then hammered *Hist* several times, while *Hornet* was struck and disabled before *Wompatuck*, also damaged, towed her out of range. The Americans withdrew, having lost one killed and several wounded.

The following day, July 1, Lieutenant Commander Adolph Marix arrived off Manzanillo with the armed yacht *Scorpion* and armed tug *Osceola*. With *Hornet*, *Hist*, and *Wompatuck* nowhere to be found, Marix nevertheless charged into Manzanillo and opened fire. Supported by Spanish guns and infantry ashore, *Guantánamo*, *Estrella*, and *Delgado Parejo* again scored heavily, hitting *Scorpion* 12 times. Outnumbered and taking damage, Marix also withdrew to await reinforcements.

Spain's only naval response to the Cuban blockade had been to dispatch Contraalmirante Pascual Cervera's badly outclassed squadron to Cuba on

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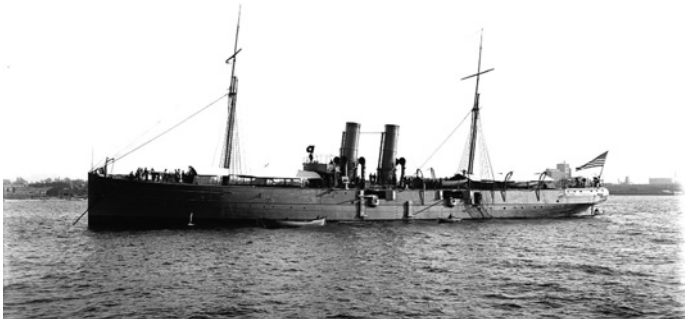
USS *PETREL* (PG-2) AT MANILA BAY, MAY 1, 1898

By late morning, Commodore George Dewey's US Asiatic Squadron had made short work of the defending Spanish ships and batteries. Shortly before noon, Dewey ordered the gunboat USS *Petrel* to close the Spanish-occupied Cavite naval base and destroy surviving small ships and craft, seen here. By 1230hrs, *Petrel*'s fire had persuaded Cavite's government buildings to haul down the Spanish flag and raise a white flag of truce. *Petrel* then dispatched armed boats and finished off seven damaged and abandoned Spanish ships, including future US gunboats *Don Juan de Austria*, *Isla de Cuba*, and *Isla de Luzon*.



The hastily purchased and converted gunboat USS *Topeka* sports her wartime haze gray paint scheme in 1898. She had originally been built in 1881. At 2,255 tons, *Topeka* was one of the largest early US gunboats and saw action off Cuba in 1898. Her merchantman lines are apparent. (LOC)

an effective suicide mission. By May 29, Cervera's four cruisers and two destroyers were effectively bottled up at Santiago de Cuba by Rear Admiral William T. Sampson's five battleships, four cruisers, and the armed yachts *Gloucester* and *Vixen*. On July 3, 1898, Cervera's squadron attempted to break out, precipitating the largest naval battle of the war.

Observing the cruiser *Vizcaya* emerge from the channel, *Vixen* steamed to attack and was barely missed astern by US shells. *Vizcaya*'s starboard bow guns fired a salvo at *Vixen* but missed overhead. Then shells from the Spanish cruiser *Cristobal Colon* straddled *Vixen* and tore her battle ensign flying from her mainmast. Stymied by Spanish shellfire, *Vixen* finally fired on *Vizcaya* at 1105hrs, but ceased fire two minutes later when the battered cruiser struck her colors. *Vixen* then joined the westerly US chase after the fleeing *Cristobal Colon*, but US battleships and cruisers forced the cruiser's surrender before *Vixen* could engage her.

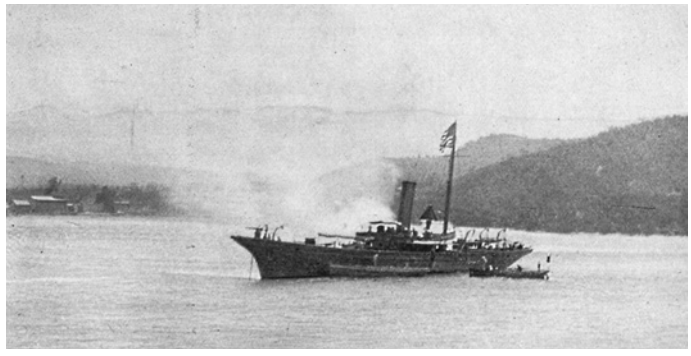
The Spanish destroyers *Plúton* and *Furor* had emerged from the Santiago channel at 1035hrs, attracting the heavy fire of the passing US battleships' after batteries. The battleship *Indiana* signaled, *"Enemy torpedo boats coming out,"* which *Gloucester*'s skipper, Lieutenant Commander Richard Wainwright, claimed to have misread as *"Gunboats close in."*

Under fire from Spanish shore batteries, *Gloucester* promptly charged the Spanish destroyers at her top speed of 17 knots, closing within 1,200yds and disappearing beneath the US battleships' huge white shell splashes. The battleship *Iowa* ceased fire, allowing *Iowa*'s Captain Bob Evans to observe *Gloucester*'s attack: "Both Colt automatic guns were blazing, fairly sweeping the decks of the [destroyers]." The Spanish destroyers' automatic 37mm Maxim guns tore up the water 20yds from *Gloucester* "as if a hailstorm was raging" before suddenly ceasing. Heavily damaged, *Plúton* ran herself aground at 1045hrs and exploded. *Gloucester* then turned her full fire on the reeling *Furor*. Ablaze below decks, the Spanish destroyer began sinking five minutes later. *Gloucester* had sunk two Spanish destroyers almost single-handedly; *Iowa*'s Captain Evans claimed the whole battle had lasted eight minutes. Incredibly, *Gloucester* remained untouched, a factor attributed to "The accuracy and rapidity of her fire, making the proper service of the guns on the Spanish ships impossible." Wainwright then dispatched three boats, which rescued 45 Spanish survivors from the destroyers' combined 128 men.

By early afternoon Cervera's entire fleet had been annihilated at the cost of one American fatality. *Gloucester* continued rescuing drowning and shipwrecked Spanish sailors for several more hours. Risking their lives, *Gloucester*'s men extricated 40 Spaniards from the blazing, exploding wreckage of the Spanish cruiser *Oquendo*. Among the 480 Spaniards *Gloucester* saved was Cervera himself. Wainwright later recalled, "When I saw that gallant gentleman in his wringing wet underclothes I felt as if I were a culprit." Wainwright impulsively shook Cervera's hand and congratulated him on a "heroic fight" while Lieutenant Harry M.P. Huse gave Cervera a fresh civilian suit to wear. *Gloucester* then transferred Cervera and his

staff to the battleship *Iowa* before delivering the remaining Spaniards to the battleship *Indiana* and American troops ashore.

Back off Manzanillo the morning of July 18, the newly reinforced US squadron attacked the shallow Spanish harbor for the third time. Now commanded by Captain Chapman C. Todd, the US force comprised the gunboats *Wilmington* and *Helena*, armed yachts *Scorpion*, *Hornet*, and *Hist*, and armed tugs *Wompatuck* and *Osceola*. The Americans engaged five Spanish gunboats, three transports, and an armed pontoon, plus a fort and shore battery of ten guns. In what proved the third-largest naval battle of the Spanish-American War, the Americans destroyed all nine Spanish vessels in three hours and retired without casualties.



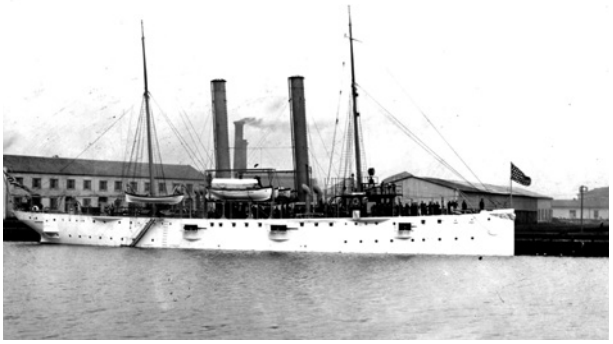
USS *Gloucester*, possibly in action, off an unidentified Puerto Rican harbor in 1898. After Santiago, *Gloucester* helped occupy Ponce and Arroyo. Banker John P. Morgan's ex-*Corsair* easily became the most famous converted yacht of the Spanish-American War. (NHHC)

Three days later, on July 21, a US Navy squadron comprising the gunboats *Topeka* and *Annapolis*, armed yacht *Wasp*, and armed tug *Leyden* arrived off Cuba's Nipe Bay. The Americans promptly charged through a Spanish minefield to attack the sloop-of-war *Jorge Juan* and two Spanish gunboats. *Jorge Juan* opened fire on *Wasp* and *Leyden*, and the US squadron returned fire from 4,000yds. Within 20 minutes *Topeka*'s 4in battery had sunk *Jorge Juan*. *Topeka* and her charges then silenced three Spanish forts ashore along with nearby Spanish riflemen. The entire action lasted barely an hour. An American party under Lieutenant Albert P. Niblack shortly boarded *Jorge Juan*'s shattered, abandoned wreck. They found her crawling with five cats and a swarm of rats that, in the colorful words of *The New York Times*, "attempted to renew the battle with the Americans, but were driven into the sea."

Meanwhile, the monitors *Puritan* and *Amphitrite*, armed tugboat *Leyden*, and collier *Hannibal* reached their Fajardo, Puerto Rico objective on August 1. Expecting reinforcements that never appeared, the next day naval infantry from *Amphitrite* occupied the Fajardo lighthouse. In the early dark of August 8, some 200 Spanish troops counterattacked the lighthouse and its 28 American defenders. After a protective two-hour bombardment from the US warships, both sides withdrew, the Americans covered by an additional 30 infantry from *Amphitrite* and the cruiser *Cincinnati*.

Back off Cuba on August 12, the cruiser *Newark*, auxiliary cruisers *Resolute* and *Suwanee*, armed yacht *Hist*, armed tug *Osceola*, and new gunboat *Alvarado* (recently captured from the Spaniards at Santiago) proceeded to bombard Manzanillo after its fortifications refused to capitulate. News of the August 12 armistice reached Cuba and Puerto Rico the following morning, and Manzanillo surrendered.

An American sailor demonstrates operation of a fully automatic 1-pdr (37mm) gun from the deck of the armed yacht USS *Hist* in May 1898. *Hist* attacked the Cuban port of Manzanillo three times, suffering heavy damage on her first attempt on June 29, 1898. (NARA)



The gunboat USS *Nashville* (PG-7) at the Norfolk Navy Yard, Virginia, in January 1898. In November 1903 the Caribbean-based *Nashville* prevented Colombian troops from deploying against Panamanian insurgents, thus helping the United States secure the Panama Canal Zone. (NHHC NH 63415)

BANANA WARS 1899–1916

The United States took on a much greater role in the Caribbean after its 1898 victory. The US government annexed Puerto Rico and established a protectorate over Cuba. American political objectives were to maintain internal order and to keep meddling foreign powers out. This was annunciated in the 1823 Monroe Doctrine, which stated that European intervention in the affairs of independent Western Hemisphere states would be regarded as "the manifestation of an unfriendly disposition towards the United States."

Between 1901 and 1905 the US Navy maintained a small South Atlantic Squadron, based out of Rio de Janeiro and Montevideo. This squadron comprised anywhere from three cruisers and one gunboat to two cruisers and four gunboats. By 1905 it had been dissolved.

On October 4, 1902, the US Navy established the Caribbean Division of the North Atlantic Squadron, based at Culebra, Puerto Rico. Within three months the Caribbean Division was reorganized into the North Atlantic Fleet's Caribbean Squadron. Its mission was "to provide at all times a force in Caribbean waters which can proceed quickly, wherever needed, to such points as may demand protection for American interests." Secretary of the Navy William H. Moody also encouraged positive diplomatic relations with the indigenous populations: "Whenever possible … a more cordial feeling should be developed by greater intercourse with the natives and their officials, by being familiar with their language and habits, and by the avoidance of any assumption of superiority." To ensure the proper gravitas for relations with US State Department officials and local governments, the US Navy made the Caribbean Squadron command a flag officer billet.

Independent Latin American states were overwhelmingly "banana republics" whose political volatility and fiscal irresponsibility often necessitated European intervention. After the 1903–04 Venezuela crisis, in 1904 President Theodore Roosevelt issued his "Roosevelt Corollary" to the Monroe Doctrine. The Roosevelt Corollary stated that if Washington expected European nations to stay out of the western hemisphere, the

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USS *TOPEKA* AND USS *GLOUCESTER*

1. USS *Topeka* (PG-35) 1898. At war with Chile since 1879, in 1880 the Peruvian navy surreptitiously ordered two merchantmen from Kiel, Germany's Howaldtswerke, shipyards using a Greek shipping line as a front. In 1881 the resulting freighters *Socrates* and *Diogenes* were transferred to Britain's Thames Iron Works, as planned, for conversion into the Peruvian cruisers *Lima* and *Callao*. However, the Chilean government convinced Britain to impound the vessels until the war's end, which would be 1884. By then impoverished by defeat, Peru canceled *Diogenes*' conversion, and only paid for *Lima* in 1889. *Diogenes* languished unsold, although in 1895 she was nearly bought by Japan. Finally, on April 2, 1898, the US Navy purchased *Diogenes* for $170,327.50, commissioned her as USS *Topeka*, and steamed her to the New York Navy Yard for conversion into a wartime gunboat.

2. USS *Gloucester* – 1898. Banking tycoon John P. Morgan's personal yacht *Corsair* was acquired by the US Navy in April 1898 for $225,000. A quick overhaul mounted four 6-pdrs, four 3-pdrs, and two Gatling guns. *Corsair* was commissioned as the 786 ton USS *Gloucester* on May 16, 1898. After seeing intense action off Cuba and Puerto Rico, *Gloucester* served in World War I and was struck on August 12, 1919.

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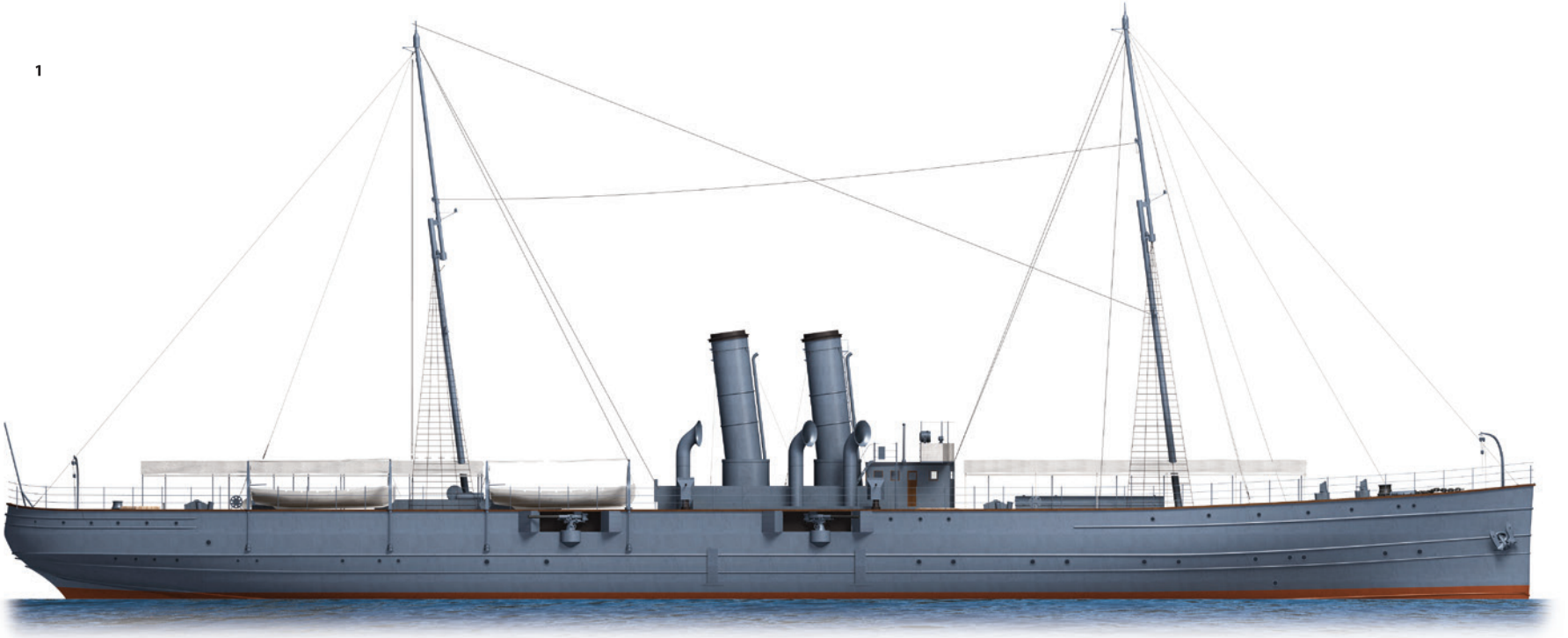

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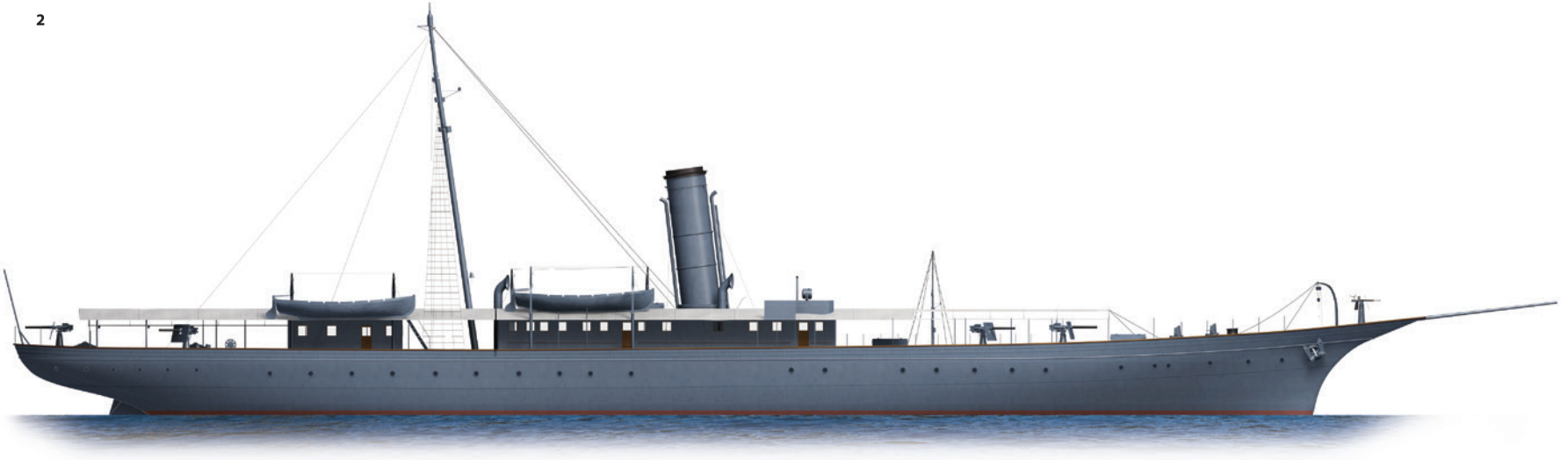
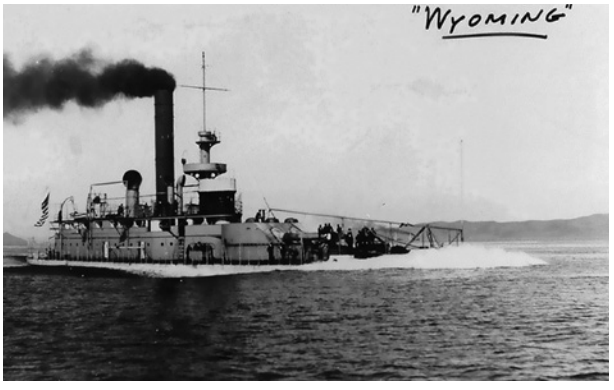




The brand-new monitor USS *Wyoming* (BM-10) conducts speed trials off San Francisco, 1902. One year later *Wyoming* would steam up the Tuira River and land marines in support of the pro-United States Panamanian insurrection. (NHHC NH 75118)

United States assumed an obligation to preemptively intervene in the affairs of any American nation that failed to "keep order and pay its obligations." In effect, the United States would manage the entire western hemisphere's affairs in the interest of keeping European powers out.

A full account of all US interventions would be impossible. However, between 1900 and 1913 the US State Department called on the US Navy to intervene in Caribbean nations over 20 times. Panama, Honduras, Nicaragua, Haiti, and the Dominican Republic each saw multiple naval interventions during this period. Most were typically minor, but some required the US Navy to land marines or naval infantry to quell crises. Between 1900 and 1913, naval landings precipitated major interventions three times: Panama in 1903, the Dominican Republic in 1904, and Nicaragua in 1912.

In April 1914, the armored cruiser *Washington* and gunboat *Petrel* sortied to Puerto Plata, Dominican Republic and were joined by *Machias* in June. *Machias* frequently shelled pro-Bordas forces in June and July, and in August the gunboat *Marietta*'s Lieutenant (Junior Grade) Richmond K. Turner led an armed party ashore at San Pedro de Macoris to protect American citizens.

From January 1915 through February 1916, the US Navy dispatched gunboats to the Dominican Republic 11 times. August 29, 1916 found the gunboat *Castine* and armored cruiser *Memphis* anchored at the Dominican Republic's Santo Domingo harbor. Huge, destructive swells suddenly developed that afternoon, capped by a 100ft freak wave. *Castine* barely escaped before the wave struck the harbor; she nevertheless nearly capsized, suffering heavy damage and three fatalities. *Memphis*, however, was battered to destruction, suffering 43 men killed and 204 badly wounded.

THE ASIATIC STATION 1899–1937

The United States annexed the Philippines in December 1898. Hostilities inevitably erupted between the American occupiers and Filipino rebels on February 4, 1899, beginning the Philippine-American War. The resulting conflict proved much more destructive than the Spanish-American War, ultimately claiming up to 6,000 American and at least 250,000 Filipino lives. Between 1899 and 1902, US gunboats and monitors saw intense littoral and riverine action against Filipino rebels. The Philippine-American War ultimately ended with an American victory on July 2, 1902, although the Islamic Moro Rebellion continued in the southern Philippines into 1913.

In China, long-simmering xenophobia triggered the 1900 Boxer Rebellion against occupying foreign powers, including the United States. During the conflict, the gunboat *Monocacy* contributed marines to the Allies' besieged Peking Legation, while *Yorktown* sent forces ashore at Taku and Tientsin, then assisted the badly grounded battleship *Oregon* off the China coast.

By August 1901, the US Asiatic station had been divided into a Northern Squadron (China, Japan, and Korea) and a Southern Squadron (the

A West Point map of 1941 China, with the Yangtze highlighted in red. A national population of 500 million ensured China anemic labor wages and widespread poverty; China's mid-1930s GNP per capita was a mere 60 yuan, equivalent to $400 in 2019. (US Army)

Philippines), which then comprised 20 gunboats. The Northern Squadron's stated mission entailed, "River and harbor service for the protection of our interests in China, and [secondarily] a cruising squadron to constitute our effective mobile naval force in the Far East."

In 1902 the Asiatic Squadron was upgraded to the Asiatic Fleet. The Fleet's Northern Squadron comprised the battleship *Kentucky* (flagship), monitors *Monterey* and *Monadnock*, cruiser *New Orleans*, and gunboats *Yorktown*, *Wilmington*, *Helena*, and *Vicksburg*. By 1905 the Asiatic Fleet had again been reorganized. The gunboat-centric Southern Squadron was renamed the Philippine Squadron, while *Monterey* and *Monadnock* and a gunboat division were allocated to the new Battleship Squadron.

On March 31, 1907, the US Navy consolidated the Asiatic Fleet and the West Coast-based Pacific Squadron (three cruisers, the monitor *Wyoming*, gunboats *Yorktown* and *Princeton*, and three destroyers) into the newly established Pacific Fleet. The former Asiatic Fleet became the Third Squadron, Pacific Fleet, and was divided into the Fifth Division (large gunboats *Concord*, *Helena*, and *Wilmington*) and the Sixth Division (small gunboats *Callao*, *Elcano*, *Quiros*, *Villalobos*, *Paragua*, *Pampanga*, *Panay*, and *Arayat*). The following year the Asiatic gunboats were reorganized into the Second Division. Finally, on February 10, 1910, the Asiatic Fleet was again reconstituted as an independent command.

Internal unrest toppled China's Qing dynasty in 1911. Its nominal successor was Sun Yat-sen's Republic of China, but by 1916 the country had collapsed into unrestrained conflict and anarchy that saw rival governments and regional warlords compete for national domination. By then the

By 1930 some 60,000 foreigners lived in China. Its largest port and commercial center was cosmopolitan Shanghai, known as "The Paris of the East." The United States and 13 other foreign powers collaborated to run the Shanghai International Settlement, part of which, the Shanghai Bund (waterfront), is seen in 1937. (Imagno/Getty Images)

USS *Isabel* (PY-10) cruises the Yangtze at Ichang in 1932, some 970 miles upriver. *Isabel* had been the Yangtze Patrol flagship between 1921 and 1929. Ordered by President Franklin D. Roosevelt, *Isabel* would conduct a top-secret reconnaissance mission of Japanese-occupied French Indochina between December 3 and December 6, 1941, coming within sight of Cam Ranh Bay before returning to Manila. (NHHC NH 80118)

US Navy was the last foreign navy remaining in China, as international law had required warring combatants to depart in 1914. By April 1917 the United States was also at war, and the US Navy evacuated to the Philippines before returning to China at war's end.

On December 25, 1919, the US Navy finally acknowledged the Yangtze Patrol and South China Patrol as official commands within the Asiatic Fleet, although realistically they had existed for decades. The commands' stated mission was "protecting U.S. interests, lives and property and to maintain and improve friendly relations with the Chinese People." In 1921, the Yangtze Patrol was upgraded to a rear admiral billet. Its 1928 commander, Rear Admiral Yates Stirling, Jr., described it as "small and weak, merely a police force against banditry." Assigned to the Yangtze Patrol were the old Spanish gunboats *Elcano*, *Monocacy*, *Palos*, *Quiros*, *Samar*, and *Villalobos*. Assigned to the South China Patrol and stationed at Canton and Hong Kong were the gunboats *Helena* and *Pampanga*.

Americans living in China belonged to one of two major communities: Christian missions or private business. Protecting these two groups was the primary mission of US forces stationed in China. In 1920, the United States exported $119 million in trade to China, and imported $227 million in Chinese products. Nevertheless, the United States' 1920 Gross National Product (GNP) was $78 billion, meaning total China trade accounted for less than 0.45 per cent of the United States' economy.

In September 1921, the Yangtze Patrol transferred its logistic base from Shanghai to the centrally located Hankow. China's ongoing civil war surged violently during the 1920s, and US gunboats saw repeated if unpredictable action. This so-called warlord era ended in 1928 when Generalissimo Chiang Kai-shek nominally reunified the Republic of China under the Kuomintang (Nationalist party or KMT). However, a new civil war had broken out with the Chinese Communists, who had broken from Chiang's KMT in 1927. This led to a new era of Yangtze banditry in which "bandits" and "Communists" were virtually synonymous. In 1931, *Panay*'s Lieutenant Commander Robert A. Dyer observed, "Firing on gunboats and merchant ships has become so routine that any vessel traversing the Yangtze River sails with the expectation of being fired upon."

By summer 1934, the US Yangtze Patrol comprised seven gunboats: *Palos*, *Monocacy*, and five of the six new 1928 gunboats. *Mindanao* deployed on the South China Patrol. In contrast, the British deployed 12 Yangtze gunboats and one cruiser each at Hankow and Shanghai, plus a sloop at Nanking. The Japanese posted 11 gunboats and five destroyers on the Yangtze, plus one cruiser each at Hankow, Nanking, and Shanghai.

Despite the persistent low-level combat, China was the US Navy's most desired assignment. Although China overall was virtually a medieval society, Western enclaves in the major treaty ports were as posh and sophisticated as the finest capitals in Europe, and far cheaper. A Yangtze veteran recalled, "For sailors and officers, bachelors and married alike, duty in China was like living

in a mild version of the Arabian Nights – something enjoyable, mysterious, and not requiring a great deal of money." Paid in US dollars, a China-based bluejacket's salary wielded enormous local purchasing power. Alcohol and prostitutes were favorite targets for disposable income, although souvenirs and tourism were also popular. As one US sailor famously explained, "The most of my pay goes for likker and wimmen. The rest I spend foolishly."

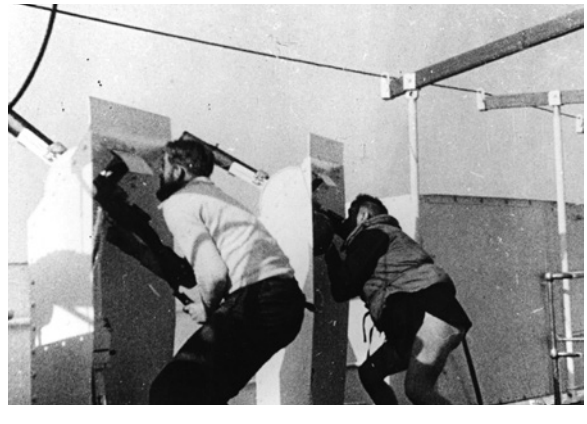
Petty Officer Richard M. McKenna served aboard the gunboat *Luzon* in 1939–41. McKenna's Yangtze experience helped inspire his 1962 novel *The Sand Pebbles*, set in 1928 aboard the fictional Yangtze Patrol gunboat USS *San Pablos*. An iconic depiction of both the Yangtze Patrol and US Navy enlisted life, *The Sand Pebbles* was made into a 1966 film starring Steve McQueen.

ASIA AND THE PACIFIC 1937–42

Under the pretext of the Marco Polo Bridge incident, the Imperial Japanese Army (IJA) commenced its full-scale invasion of China in July 1937. Peking fell on July 29, and on August 11, the first 10,000 Japanese troops landed at Shanghai. The US Navy's Yangtze Patrol was now awkwardly stuck in the middle of someone else's war, as bombs and artillery shells from both Japanese and Chinese armies flew over and into the Yangtze daily. From Washington, the US government demanded a policy of strict noninterference. The heavy cruiser *Augusta* took the first American casualties on August 20, when an unidentified artillery shell killed one and wounded 17. By now some 1,500 US military personnel were ashore at Shanghai (230 from *Augusta* and *Sacramento* landing parties), along with 4,000 American civilians. On September 19, the 1,300 men of the US 6th Marines arrived to reinforce the 4th Marines, all under the command of Brigadier General John C. Beaumont (USMC).

The *Panay* Incident, December 12, 1937

On September 25, 1937, the Japanese attacked the Nationalist capital of Nanking. By December 8, the last of the Nationalist government had evacuated, and *Panay*'s skipper, Lieutenant Commander James J. Hughes, received orders to evacuate the Nanking area at his discretion. *Panay* was then 15 miles upriver from Nanking. In addition to her five officers and 54 men, *Panay* had embarked 15 American and foreign refugees and correspondents, meaning the coming day's events would be unusually well-documented. At 0825hrs, December 12, *Panay* began steaming upriver to escape the war-torn Nanking area, accompanied by the three Socony-Vacuum (Standard Oil) tankers *Mei Ping*, *Mei Hsia*, and *Mei An*. At 0940hrs *Panay* was flagged down by IJA troops, and Lieutenant Sesyo Murakami and three armed guards boarded her. Hughes answered questions about the convoy, but politely refused information on Chinese belligerents. Murakami's party then departed and *Panay*'s



Manning 0.30-caliber Lewis guns, crewmen aboard USS *Panay* fight back at attacking Japanese aircraft, December 12, 1937. On the right is Chief Boatswain's Mate Ernest R. Mahlmann. Awoken from a nap below decks, he famously went into action without bothering to grab his pants. (NHHC NH 50815)

The forlorn and abandoned USS *Panay* sinking into the Yangtze at 1545hrs, December 12, 1937. At about this time a Japanese boat came alongside machine-gunning her, then boarded her. Ten minutes later *Panay* had sunk entirely. (NHHC NH 50805)

convoy resumed steaming upriver. After another five miles, the convoy anchored in a particularly wide section of the Yangtze, specifically to avoid belligerent fire. That morning the IJA had reported ten Chinese troop transports fleeing Nanking upriver. Lieutenant General Prince Yasuhiko Asaka gave the attack order to the much larger Imperial Japanese Naval Air Force (IJNAF) contingent. Two huge American flags were painted on *Panay*'s awnings, and she flew her largest ensign. "We had no reason to believe the Japanese would attack us; the U.S. was a neutral nation, and Japanese aircraft had been flying over us since 27 September on their way to bomb Chinese targets," recalled Lieutenant Arthur F. Anders. "Nonetheless, the order to man our defense stations and to close water-tight doors and hatches was immediately given when the planes were sighted." The closing IJNAF formation bore in from dead ahead. At 1337hrs, three of six aircraft began a steep dive, and to the Americans' horror, released 18 132-lb bombs.

Two bombs struck *Panay*. The first knocked out the bow 3in/50 gun, destroyed the pilothouse, ruptured the hull along the waterline, and incapacitated Lieutenant Commander Hughes. The second demolished *Panay*'s radio shack and wrecked her fireroom. *Panay* was dead in the water, her radio destroyed. Japanese fighters now repeatedly strafed *Panay* and her accompanying tankers. Wounded in the throat, Anders ordered *Panay* to return fire with her eight amidships 0.30-caliber machine guns, but these were virtually useless against the bow-on attacks.

Panay was shortly down by the bow and listing to starboard. Within 25 minutes, her main deck was awash and she had taken 6ft of water below. The chilly Yangtze flowed at a dangerous seven knots, threatening to collapse *Panay*'s bulkheads. *Panay*'s two small boats and a sampan evacuated her personnel, making five trips each. By 1505hrs *Panay* was fully abandoned. Thirty minutes later, a small armed IJA boat closed to point-blank range and machine-gunned the abandoned, sinking *Panay*, despite her conspicuous American flags. After briefly boarding her, the IJA party departed, and at 1545hrs *Panay* rolled over and sank into the Yangtze. All three tankers were attacked and two were sunk, including *Mei Ping*, which hosted eight *Panay* men who shortly earlier had gone aboard to drink beer.

Survivors of the *Panay* huddled in a bamboo swamp. Japanese aircraft flew overhead on search-and-rescue missions, but the Americans hid, fearing the Japanese were intent on finishing them off. The survivors were unclothed for winter nights and virtually without food or medical supplies. After three days they were rescued at Hohsien by the Royal Navy gunboats HMS *Ladybird* and HMS *Bee*, with the US Navy's *Oahu* hard en route. *Panay*'s able-bodied had carried 18 badly wounded men eight miles by stretcher. Two US Navy personnel, one American civilian, and one Italian journalist ultimately died as a result of the attack, plus an American captain and 60 Chinese sailors from the Socony-Vacuum tankers.

On April 22, 1938, an apologetic Japanese government paid the United States $2,214,007.36 in settlement for the entire episode. The Japanese then brazenly requested to salvage *Panay* and the two tankers, which the US

government refused. Exactly why Japanese forces attacked *Panay* has never been conclusively established. Some have claimed *Panay* was carrying disassembled Japanese fighter aircraft intended for US intelligence; if so then perhaps certain Japanese were aware of it. Many Japanese officers were extremists who ignored higher authority and simply waged their own private wars, particularly in China. Such unilateral action fits evidence suggesting the attack was intentional on a local level, but not authorized by the Japanese government.

Japanese terror bombing strikes the Nationalist capital of Chungking, 1941. This view is from the American embassy with USS *Tutuila* just out of frame below. Extremist Japanese officers had unilaterally started the Second Sino-Japanese War in 1937. Their supposed political and economic canards for invading China had long since given way to a war of virtual extermination. (Carl Mydans/ The LIFE Picture Collection via Getty Images)

Escape from China, late 1941

The IJA finally conquered Nanking on December 13, 1937, the day after *Panay* was sunk. While *Panay*'s survivors were still hiding in freezing Yangtze swamps, 20 miles downriver the IJA commenced the infamous Rape of Nanking, a month-long orgy of murder, rape, and unfathomable brutality that slaughtered up to 300,000 Chinese civilians and POWs. Towards local Western forces, the Japanese became increasingly peremptory in their tone and demands. On December 21, Vice Admiral Kiyoshi Hasegawa messaged US Asiatic Fleet commander Admiral Harry E. Yarnell: "It is the desire of the Japanese Navy that foreign vessels including warships will refrain from navigating the Yangtze except when an understanding is reached by us." Yarnell politely but firmly responded that this was unacceptable, and his letter was co-signed by British, French, and Italian officers.

Chiang's Nationalist government shortly evacuated Hankow for Chungking, which for the moment was beyond Japanese bomber range. The official US embassy followed in August 1938, escorted upriver by the beer- and supply-laden gunboat *Tutuila*. Nevertheless, Japanese forces kept advancing upriver, and by early May 1939 Chungking suffered the first of many devastating Japanese bombing raids. *Tutuila* was now marooned at Chungking, her fuel spent, and any escape downriver blocked by Nationalist river barriers and minefields. Months later, Admiral Thomas C. Hart replaced Yarnell as Asiatic Fleet commander. By now the aging and decommissioned *Palos* and *Monocacy* had been disposed of, leaving only *Asheville*, *Tulsa*, *Guam*, *Tutuila*, *Oahu*, *Luzon*, and *Mindanao* in China. Combined with US Marine Corps detachments in Peking, Tientsin, and Shanghai, they comprised the last remaining US military presence on the Asian mainland. By late 1940, all Asiatic Fleet dependents, some 2,000 American women and children, were ordered home to the United States.

Relations with Japan continued to deteriorate. On July 5, 1941, Hart ordered *Asheville* and *Tulsa* to depart China for the Philippines. After leaving Amoy, *Asheville*'s propeller shaft broke in a typhoon. The light cruiser *Marblehead* towed *Asheville* into Manila on July 11 – a harbinger of darker events to come. Hart assigned *Asheville* and *Tulsa* to the Philippines' Inshore Patrol. Back in Chungking, on July 31, 1941, a Japanese bomb near-missed *Tutuila*, causing $27,045.78 in damage but no injuries. Admiral Shigetaro Shimada, commander of the IJN's China Seas Fleet, dutifully apologized.

Unscathed by the latest bombing, the stranded gunboat USS *Tutuila* lies anchored on the Yangtze River near the American embassy at Chungking, summer 1941. On the bluffs across the river, blackened, burnt-out Chinese dwellings attest to the ferocity of Japanese terror bombing. *Tutuila*'s US crew would decommission her on January 19, 1942 and escape back to the United States. (Carl Mydans/The LIFE Picture Collection via Getty Images)

In October 1941, Hart put his Yangtze Patrol commander, Rear Admiral William A. Glassford, in command of all US forces remaining in China – Glassford's own Yangtze Patrol, the 4th Marines, and naval attachments to the US Marine Corps units at Tientsin and Peking. The actual Tientsin and Peking marines themselves were directly controlled by the US State Department. One month later President Roosevelt approved the withdrawal of the US gunboats and 4th Marines from China, which Hart, secretly reading Japanese Purple codes, promptly recommended ten days later. *Wake* (the recently renamed *Guam*) was at Hankow and (aside from the stranded *Tutuila*) was the farthest inland of US gunboats. *Wake* departed downriver at 1400hrs, November 24, tightly escorted by two unwelcome Japanese gunboats. The tense four-day trip to Shanghai, with all three warships at battle stations, concluded on November 28, the same day the last of the US 4th Marines departed for Manila aboard SS *President Harrison*.

At Shanghai, *Luzon*'s and *Oahu*'s main-deck openings had been shuttered up watertight; *Luzon* and *Oahu* had been quietly preparing to depart since November 11. Cofferdams shielded the gunboats' fireroom blower intakes just above the waterline. Within hours, most of *Wake*'s stores and crew had been transferred to *Luzon* and *Oahu*; *Wake* received a caretaker crew of 14 Shanghai US Naval Volunteers under Lieutenant Commander Columbus D. Smith, US Naval Reserve. At midnight, November 29, the unlit *Luzon* and *Oahu* proceeded stealthily downriver, sneaking past Chinese junks and the Japanese cruiser *Izumo*. For a few horrifying moments *Oahu* briefly grounded, but as dawn broke both vessels had reached the Yangtze mouth and the open Pacific, a body of water for which they had never been designed.

For the first time ever the Yangtze Patrol was on the high seas, with *Oahu* and *Luzon* making 10.5 knots en route to Manila. Harassed by Japanese aircraft overhead and imperious Japanese warships nearby, the two gunboats were forced to steam to the Philippines through an approaching typhoon. Brutally high head seas hammered the river gunboats, with *Oahu* displaying a staggering 56-degree roll. The gunboats barely exceeded steerageway but defiantly remained afloat. "For nearly 48 hours [we] experienced the hardest beating of our lives at sea," Glassford recalled.

> There was no sleep, no hot food; one could scarcely even sit down without being tossed about by the relentless rapidity of the lunging jerks … I recall just before dawn on the 4th December, while clinging to the weather rail of the bridge deck, that our situation could not possibly be worse and wondering how much longer we could stand it. Not the ships, which had proven their worth, but ourselves.

By dawn December 5 the storm suddenly ended, leaving beautiful clear skies and placid seas. *Luzon* was soon making 16 knots, with *Oahu* trailing astern. Glassford dutifully radioed, "*COMYANGPAT DISSOLVED*."

Pearl Harbor, December 7, 1941

The gunboat *Sacramento* had arrived at Pearl Harbor on August 15, 1941. On December 7, she was berthed at repair berth B-6 between the destroyers *Mugford* and *Jarvis*, almost the eastern harbor's central location. At 0755hrs Japanese aircraft were seen and heard attacking the airfield at Ford Island. *Sacramento* went to general quarters at 0757hrs, with Lieutenant Henry P. Michiels barehandedly smashing the glass cover of the magazine safe to retrieve the magazines' access key.

By 0802hrs *Sacramento* was returning 0.50-caliber anti-aircraft fire. As the torpedo attack on Battleship Row unfolded, *Sacramento* helped shoot down a Japanese aircraft crossing her own stern at a range of 200yds. At 0920hrs *Sacramento* dispatched a launch to the capsized battleship *Oklahoma*, which rescued 27 men. About 20 minutes later, *Sacramento*, *Mugford*, and *Jarvis* combined to shoot down a second Japanese aircraft flying across *Sacramento*'s port beam at 200ft and a range of 300yds. *Jarvis* would stand out at 1020hrs, but by then the attack was over. *Sacramento* transferred 3,800 rounds and one ton of provisions to *Mugford*, which followed *Jarvis* at 1215hrs. *Sacramento* then resumed harbor rescue and salvage operations.

Twilight of the Asiatic Fleet 1941–42

Two hours after Pearl Harbor was bombed, at 0400hrs, December 8 Shanghai time, IJN troops from the armored cruiser *Izumo* stormed the unprepared *Wake* at her moorings. They quickly overwhelmed and captured her skeleton crew before the Americans could detonate the gunboat's scuttling charges. *Wake* surrendered, the only US warship to do so in World War II. The Japanese ultimately refit her and recommissioned her into IJN service as *Tatara*. Little is known of her wartime service, but *Tatara* survived at least six separate attacks by B-24s, B-25s, and P-51s in 1944 alone. Postwar, *Tatara* was recaptured by US forces and transferred to Chiang's Nationalist China, where she served as *Tai Yuan*, before being captured in 1949 by the Chinese Communists. Her subsequent fate is unknown, but at a minimum *Wake* served under at least four different names in four different navies.

At 0230hrs, December 8, 1941 (Eastern date), Manila began receiving radio messages that Pearl Harbor was being bombed. By afternoon, a complete breakdown in US command allowed the Japanese to win permanent air superiority over the Philippines. Any remote chance of successfully defending the Philippines from Japanese invasion was now gone.

Mindanao had escaped Hong Kong on December 4. En route to the Philippines, she sank a Japanese fishing boat and took ten prisoners, the first Japanese POWs captured by the United States (and as it turned out, the last for a very long time). The following day, December 10, *Mindanao* reached Manila and the South China Patrol was officially dissolved. Having arrived in the Philippines, *Mindanao*, *Oahu*, and *Luzon* were reassigned to Captain Kenneth M. Hoeffel's Inshore Patrol. Constant, uncontested Japanese air raids began on December 10. By late evening, Japanese bombers had razed the Cavite Navy Yard, finishing the Philippines as a naval base. The patrol yacht *Isabel* shot down at least one Japanese aircraft, survived eight dud bombs that near-missed her stern, and then safely escaped Cavite for Borneo. Later that night, Glassford led the gunboats *Asheville* and *Tulsa* and minesweepers *Lark* and *Whippoorwill* out of Manila to reinforce the

Two hours after the December 7, 1941 attack on Pearl Harbor, Japanese naval troops celebrate the capture of the gunboat USS *Wake* (PR-43) at her Shanghai pier the morning of December 8, 1941. *Wake*'s skipper and the US consulate were captured ashore by almost apologetic Japanese. Four of *Wake*'s radiomen assigned to the consulate simply threw overcoats on over their uniforms and walked straight through the Japanese troops to freedom. (NHHC NH 96568)

Malay Barrier in the Netherlands East Indies. They would reach Surabaya, Java by December 25.

The Japanese would land their main Luzon invasion force at Lingayen Gulf on December 22. Three days later the badly outmatched US-Filipino forces fled Manila for a last stand on the Bataan peninsula and nearby Corregidor Island. The following night witnessed the last successful flight of US surface ships from Manila Bay – none of them gunboats. The remaining US gunboats – *Mindanao*, *Oahu*, and *Luzon* – now took up a precarious day-to-day existence at Corregidor alongside the equally forlorn US Army and US Marine Corps contingents. Japanese air raids hammered the Americans daily, although the gunboats occasionally shot down enemy aircraft and sent what little extra rations they could to the increasingly diseased and starving troops and marines ashore. At night the gunboats patrolled off Bataan to counter Japanese infiltration attempts, but fuel grew increasingly short. Hoeffel's command moved underground at Corregidor on December 29. The gunboat crews helped fortify Corregidor by day, then returned to their vessels by night to sleep.

Back in Chungking, *Tutuila* was decommissioned on January 19, 1942 and her men ordered to "proceed or report to the nearest ship or station for duty." Chiang's Nationalists recovered *Tutuila* and renamed her *Mei Yuan*. After an epic journey via civilian airliner and steamer, *Tutuila*'s American crew would safely reach Trinidad on April 24, 1942.

Meanwhile off Bataan, the Americans divided their last 20,000 gallons of fuel between *Mindanao* and *Luzon* on February 15. In the Netherlands East Indies, *Tulsa* arrived at Tjilatjap, Java and her crew ominously began training in jungle warfare, before receiving orders for convoy escort. Finally, on March 1, 1942, *Tulsa*, *Asheville*, *Lark*, and the armed yacht *Isabel* were

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USS *ASHEVILLE'S* (PG-21) LAST STAND, JAVA, MARCH 3, 1942

After being sighted 300 miles south of Java by Japanese aircraft, the crippled gunboat USS *Asheville* was overhauled by Vice Admiral Nobutake Kondo's far superior IJN surface force. The heavy cruiser *Maya* stood by while the destroyers *Arashi* and *Nowaki* engaged *Asheville* at close range in an utterly unequal fight. After a vicious 30-minute firefight *Asheville* was wrecked and sinking. Making his way topside, 18-year-old Fireman 1st Class Fred L. Brown successfully abandoned *Asheville* as she sank from underneath him.

After first calling for any officers, a Japanese sailor aboard one of the destroyers threw a line to Brown and pulled him aboard. Remaining Americans were left to die. *Asheville*'s lone survivor died in Japanese captivity on March 18, 1945. Before he expired, however, Brown passed on his story to a survivor of the sunken cruiser USS *Houston*, who lived to report *Asheville*'s final hours upon his liberation.

Asheville's March 3 demise was not quite the gunboats' last Asiatic surface action. Expecting a Japanese landing behind US lines, at 0200hrs, April 6, the patrolling *Oahu* and *Mindanao* spotted 11 small Japanese landing craft silhouetted in the moonlight east of Bataan, heading for shore. *Oahu* and *Mindanao* opened fire with their four 3in/50 guns and 0.30-caliber machine guns. After cloud cover blocked the moonlight, *Mindanao* re-established contact by illuminating the Japanese landing craft with star shells. Before long, Japanese shore batteries joined in and began landing shells dangerously close to *Oahu* and *Mindanao*. The two gunboats shortly withdrew, having sunk four Japanese vessels and damaged several more in the so-called "Battle of Manila Bay."

Completely destroyed by Japanese bombing raids, Manila Bay's Cavite Navy Yard burns furiously late on December 12, 1941. The United States' already slim prospects for successfully defending the Philippines had been decisively eliminated by Japanese surprise and American bumbling. (Photo by © CORBIS/ Corbis via Getty Images)

ordered to flee Tjilatjap for Australia. *Asheville* again developed engine trouble and fell behind. Just before noon on March 3, the by now out-of-sight *Asheville* radioed that she was under attack. Ninety miles ahead, the minesweeper *Whippoorwill* turned around to assist. Upon *Asheville*'s transmission clarifying that she was being attacked by major surface forces, *Whippoorwill*'s skipper reluctantly aborted the rescue mission, reporting that "any surface vessel that could successfully attack the *Asheville* would be too much" for his minesweeper. *Tulsa*, *Isabel*, and *Whippoorwill* would successfully reach Australia, becoming the last remnants of the Asiatic Fleet to escape the Japanese. *Asheville* was never seen or heard from again.

At Bataan and Corregidor the starving American and Filipino defenders remained hopelessly trapped by a far superior, well-equipped Japanese army of 75,000 troops. Rescue was impossible, meaning the Americans' and Filipinos' final doom was only a matter of time. After months of fierce resistance, Bataan finally surrendered on April 9. That afternoon, three fleeing US Army officers paddled out to *Mindanao*. They reported more men ashore, starving and too weak to swim. *Mindanao* hurriedly closed the Bataan shoreline and rescued another 60 US troops desperate to escape impending captivity.

At Corregidor the following day, *Oahu*'s, *Mindanao*'s, and *Luzon*'s crews came ashore for good. For several more weeks a beleaguered band of Americans and Filipinos, marines, sailors, airmen, and nurses held out in Corregidor tunnels beneath relentless Japanese shelling – Southeast Asia's last organized resistance against the Japanese Empire. Throughout the siege, the skilled US gunboat sailors manned Corregidor's heavy shore batteries and maintained a clever gunnery duel that frustrated the far superior Japanese artillery. After the long-abandoned *Mindanao* took a bomb to her engine room, the Americans scuttled her on May 2. "The ship was finished," reported her skipper, "but her crew wasn't." Three days later, Japanese gunfire sank *Oahu*; shortly afterwards the Americans scuttled *Luzon*, the Philippines' last surviving gunboat.

The end drew near. Late on the night of May 5, after pounding Corregidor with 16,000 shells in 24 hours, several thousand Japanese infantry stormed ashore against fierce but badly outnumbered American resistance. After several hand-to-hand repulses, the Japanese returned with tanks and blasted their way towards the American tunnel entrance. The following morning, May 6, 1942, gunboat commander Hoeffel broadcast the Asiatic Fleet's final message: *"One hundred and seventy-three officers and twenty-three hundred seventeen men of the Navy reaffirm their loyalty and devotion to country, families, and friends."* By noon Corregidor had surrendered.

CONCLUSION

The massive war-built US fleet spelled the end of the surviving US gunboats in 1945. Gunboats were never politically popular in a bluewater-obsessed US Navy. They did not align with the US Navy's preferred doctrine of sea control,

which stressed battle fleets. As combatants, gunboats were typically last in priority for funds, maintenance, and spare parts. But while many politicians and even some officers had long questioned the validity of battleships, no one ever dismissed the utility of gunboats. This was especially true after 1898, when the United States suddenly found itself with extensive overseas interests that needed organization and protection. Such operations were typically impromptu and "up close and personal" in the form of landing parties and close-in logistic and fire support. The shore-hugging gunboats simply provided this in a way capital ships could not.

Aside from their yeoman's work supporting American interests, US gunboats arguably bequeathed the US Navy two irreplaceable legacies. The first was that they gave many officers their very first command. Indeed, it was the original USS *Panay*, captured from the Spanish in 1898, that became 21-year-old Midshipman Chester W. Nimitz's first command in January 1907. Under Nimitz, the 162-ton *Panay* independently patrolled Mindanao ports and inlets for nine months before decommissioning on October 5, 1907. Such confidence-building experience was invaluable. The gunboats' second legacy was imparting the US Navy with a unique tradition of independence and exoticness not available from anywhere else in the service. Without its gunboats, the US Navy would hardly have been weaker, but its history would be much the poorer.

SELECT BIBLIOGRAPHY

Alden, D., Commander, US Navy (Retired), *The American Steel Navy*, Naval Institute Press, Annapolis, Maryland (1972)

Dept. of the Navy, *Annual Reports of the Secretary of the Navy*, GPO, Washington (1885–1937)

Friedman, Norman, *U.S. Cruisers: An Illustrated Design History*, Naval Institute Press, Annapolis, Maryland (1984)

Friedman, Norman, *U.S. Small Combatants, Including PT Boats, Sub-Chasers, and the Brown-Water Navy: An Illustrated Design History*, Naval Institute Press, Annapolis, Maryland (1987)

Konstam, Angus, *Gunboats of World War I*, Osprey Publishing, Oxford (2015)

Konstam, Angus, *Yangtze River Gunboats 1900–49*, Osprey Publishing, Oxford (2011)

Langellier, John, *US Armed Forces in China 1856–1941*, Osprey Publishing, Oxford (2009)

Leeke, Jim, *Manila and Santiago: The New Steel Navy in the Spanish-American War*, Naval Institute Press, Annapolis, Maryland (2009)

McKenna, Richard, *The Sand Pebbles*, Naval Institute Press, Annapolis, Maryland (2001)

Tolley, Kemp, *The Yangtze Patrol: The U.S. Navy in China*, Naval Institute Press, Annapolis, Maryland (2013)

Yerxa, Donald A., *Admirals and Empire: The United States Navy and the Caribbean, 1898–1945*, University of South Carolina Press, Columbia, South Carolina (1991)

www.navsource.org

www.navweaps.com

www.spanamwar.com

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